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POMEAS

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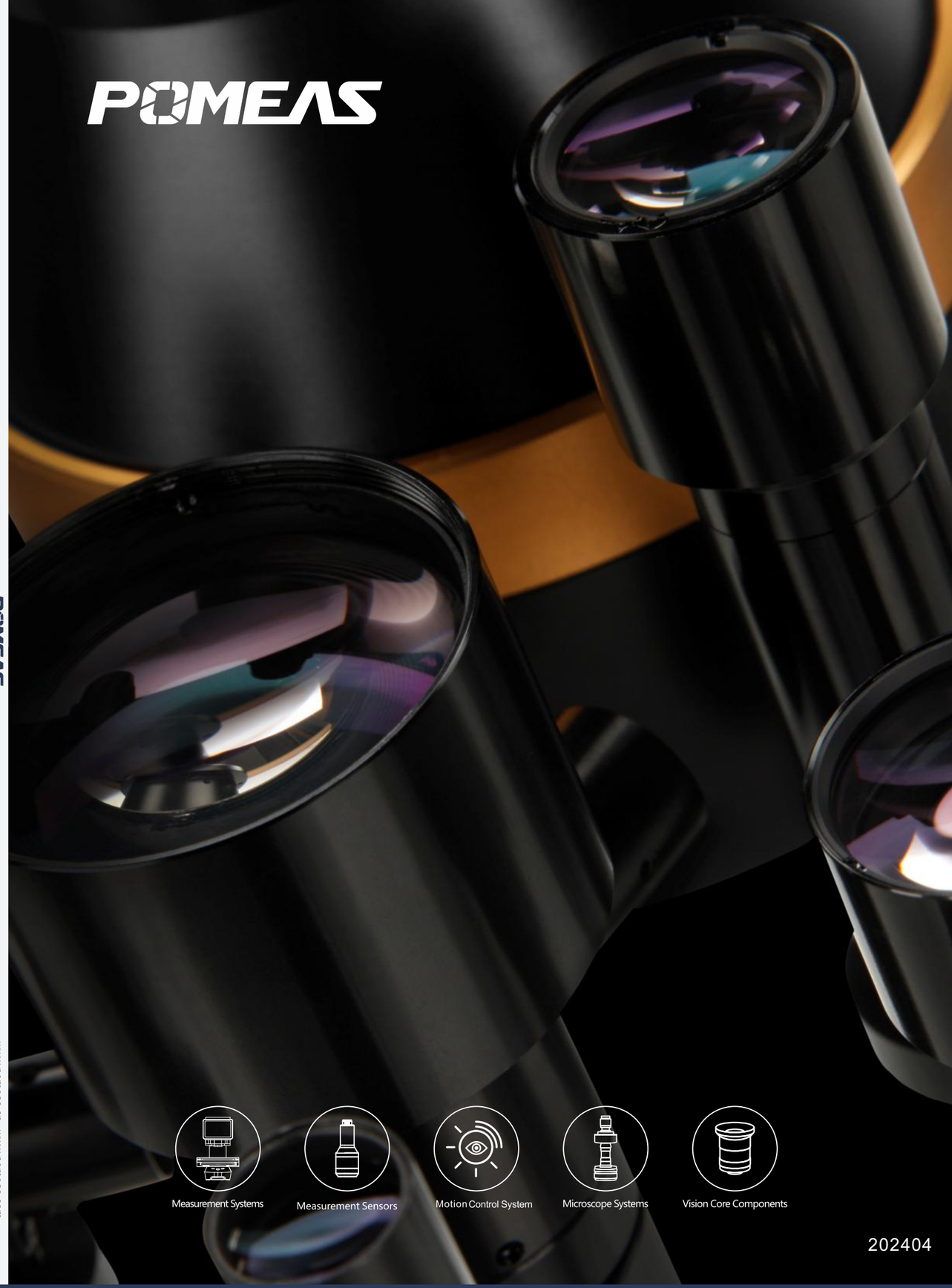


202404

Professional Fa & Machine Vision System Supplier Focusing On Industrial Inspection

ABOUT POMEAS

POMEAS, as a comprehensive supplier of industrial automation products, has been committed to providing high-precision and high-efficiency vision components and system solutions for global customers since its establishment in 2010. The company started with the production of optical lenses and measuring microscopes, and gradually formed two core technology platforms: quick vision inspection software and imaging optoelectronics . In addition, POMEAS provides embedded optical sensor hardware and customised AI software + 3D algorithm platforms to meet the needs of different industries and specific applications. The founding team has been working in the field of machine vision and optical measurement for more than 20 years, which makes the company's products and technology solutions leading in the industry.

The company's product matrix includes three main product segments: optical sensor devices, 3D measurement systems and precision motion control systems. Among them, the optical sensor parts segment covers industrial lenses, 2D cameras, 3D confocal sensors, measuring microscopes and solutions, etc., which are widely used in industrial, semiconductor, automotive manufacturing, new energy and other areas of the production process of the key processes of defect detection, dimensional measurement and positioning; 3D measurement segment includes MetX, measurement systems and three-dimensional morphology analysis system; Precision Motion Control System segment includes The precision motion control system segment includes key core components such as nanoscale motion table, piezoelectricity, focus, special motors, drive control and optoelectronic products and motion controllers, which are applied in semiconductor equipment and 3C electronics, PCB and other pan-semiconductor equipment, solving the core technology "choke point" problem.The company is committed to deep ploughing into technological innovation and tapping into demand. We are committed to technological innovation, exploring the pain points of demand, and providing detailed services. POMEAS always focuses on the field of machine vision, adheres to the road of craftsmanship, and provides practical technical support and high-precision, high-efficiency industrial inspection solutions for users in different industries with dedication and professionalism.

In the future, POMEAS will further increase investment in product research and development, and continue to carry out innovation and performance upgrading of the company's products, constantly innovate and make breakthroughs to lead the development of industrial inspection technology, and become a competent partner for users in various industries in the process of the manufacturing industry's development towards digitalisation and intelligence, and jointly promote the high-quality development of the industry.

OUR VALUES

If you are an equipment manufacturer in pursuit of high precision technology requirements, please contact us.

POMEAS can customise vision core Component and comprehensive solutions to meet your stringent requirements in industrial automation and quality control.

If you are an OEM equipment manufacturer, pursuing technological innovation and product upgrading.

POMEAS can provide you with a superior multi-sensor measurement system. These systems provide highly accurate dimensional measurement and morphological analysis of your equipment, ensuring consistent and reliable product quality.

If you are an instrument and equipment assembly plant, focusing on the stability and efficiency of the equipment.

POMEAS can provide you with precision motion control systems. The systems use advanced technology and high quality components to ensure that your equipment has excellent performance and precision in motion control.

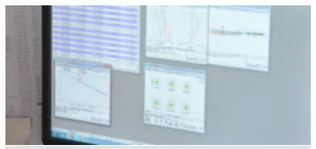
CORPORATE CULTURE

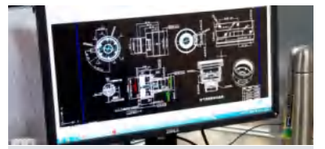
CORPORATE VISION	Dedicated to building machine vision "domestic substitution" leading enterprises, leading the new quality of productivity, and promote the innovation and development of the industry.
CORPORATE MISSION	Take the manufacturing industry to the machine "vision" world, let the wisdom of the eye to help China's smart manufacturing, creating a new era of intelligent manufacturing.
CORPORATE VALUES	Customer-focused, innovation-driven, teamwork-orientated and results-oriented ;

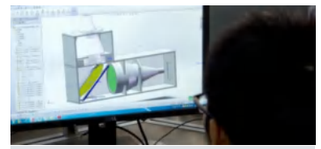
ENTERPRISE ENVIRONMENT

RESEARCH PRODUCTIVITY

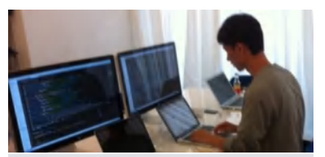
POMEAS has a deep technical accumulation in the fields of optical design, structural design, electronic design, image processing, software algorithms, PLC control, etc. The founding team has been deeply engaged in the field of machine vision and optical measurement for more than 20 years, which has made a number of the company's products and technological solutions in the industry in a leading position.


Optical Design

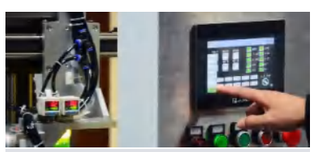

2D Structure Design


3D Structure Design


Electronic Design


Software Development


Industry Design


PLC Control Design


Vision System Integration

POMEAS VISION TECHNOLOGY

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

DIRECTORY

VISION COMPONENTS

Zoom Lens Series

Telecentric Lens

Fa Lens

Vision Light Source Series

Industrial Camera Series

Projector Accessories Series

Sensor Series

MEASURING SYSTEM

VIDEO MICROSCOPE

Microscope Series

PRECISION MOTION CONTROL SYSTEM

Control System

VISUAL ACCESSORIES

Visual accessories

ZOOMLENS SERIES

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

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.

Detented Zoom

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.

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.

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

Optional accessories

APO Objective Lens

APO objective lenses are available in 2X, 5X, 10X, 20X and 50X.Long working distance APO objectives 20.5mm, 30.8mm, 34.6mm, 45mm.

Lens Attachment

lenses are available in 0.25X、0.3X、0.5X、0.75X、2.0X.

TV tube

TV tubes are available in 1.0X mini, 2.0X mini, 0.5X, 0.67X, 1.0X, and 2.0X.

4K continuous zoom lens K75 Series

1" 0.68X~5X

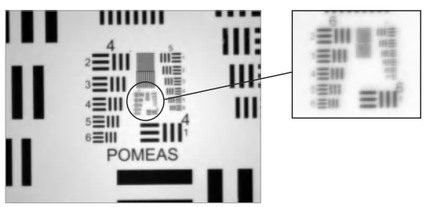
The 4K big FOV high-resolution zoom lens not only has excellent performance in zooming, but also has big FOV and higher speed; it' s an ideal choice for high speed detection and accurate application. Compared with thetraditional zoom system, the field of vision is improved by more than 1.45X.

Parameter Table

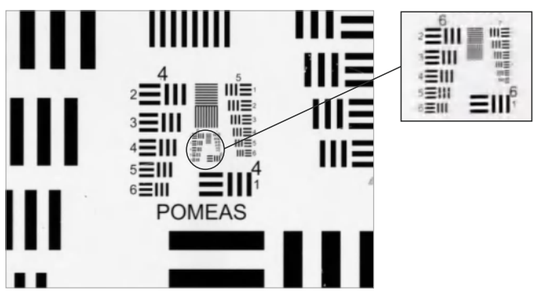
Magnification Range		0.68X~5.0X					
Working Distance (mm)		80					
Magnification		0.68X	1.0X	2.0X	3.0X	4.0X	5.0X
DOF (mm)		1.78	0.89	0.25	0.12	0.08	0.07
N.A.		0.033	0.045	0.08	0.11	0.12	0.12
F.No.		10.3	11.0	12.4	13.5	16.5	20.6
Resolution (μm)		10.173	7.46	4.19	3.05	2.8	2.8
TV Distortion		<0.02%	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
FOV (mm)	1"	23.53x18.82x14.12	16.0x12.8x9.6	8.0x6.4x4.8	5.33x4.27x3.2	4.0x3.2x2.4	3.2x2.56x1.92
	2/3"	16.18x12.94x9.71	11.0x8.8x6.6	5.5x4.4x3.3	3.67x2.93x2.2	2.75x2.2x1.65	2.2x1.76x1.32
	1/2"	11.76x9.41x7.06	8.0x6.4x4.8	4.0x3.2x2.4	2.67x2.13x1.6	2.0x1.6x1.2	1.6x1.28x0.96
	1/3"	8.82x7.06x5.29	6.0x4.8x3.6	3.0x2.4x1.8	2.0x1.6x1.2	1.5x1.2x0.9	1.2x0.96x0.72
Max. Sensor Size		1"					
Total Length(mm)		328					
Zooming Method		Manual/motorized					
Mount		C-Mount					

APPLICATION FIELDS

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

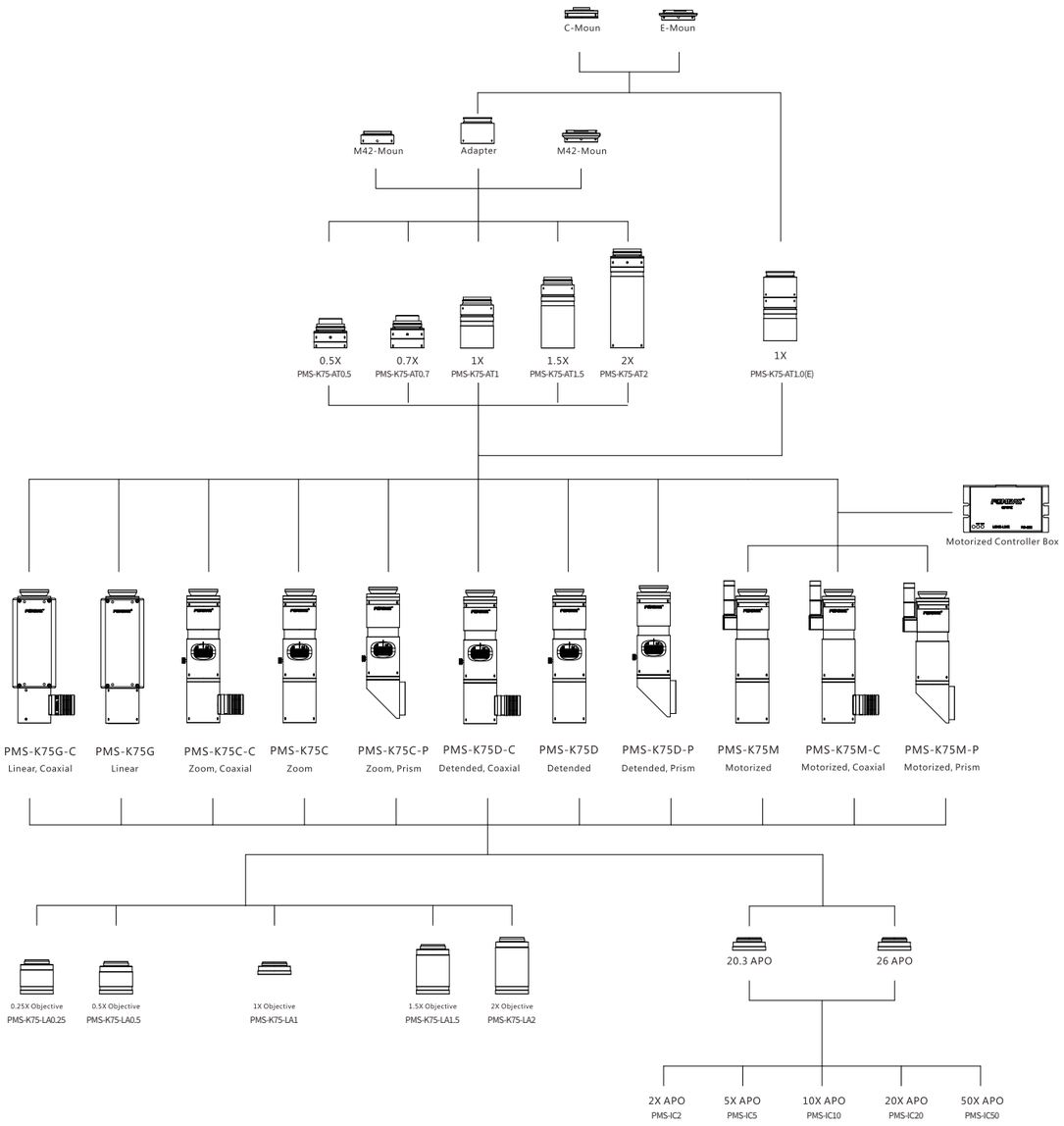


zoom lens@5x resolution board



4K high resolution zoom lens@5X resolution board

4K Zoom Lens System Diagram

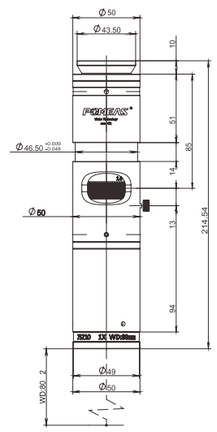


4K Zoom Lens Fov Table

NA				Resolution(um)		TV Adapter Magnification		0.7X		1X		1.5X		2X	
Attachment Magnification	WD(mm)	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	Combined magnification		0.119X	0.857X	0.17X	1.25X	0.255X	1.875X	0.34X	2.5X
						DOF (mm)		40.74	1.52	28.52	1.07	19.01	0.71	14.26	0.53
						FOV (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	47.1×37.6×28.2	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	Combined magnification		0.238X	1.75X	0.34X	2.5X	0.51X	3.75X	0.68X	5X
						DOF (mm)		10.19	0.38	7.13	0.27	4.75	0.18	3.57	0.13
						FOV (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	6.4×5.1×3.8	31.4×25.1×18.8	4.3×3.4×2.6	23.5×18.8×14.1	3.2×2.6×1.9
							4/3'	-	-	-	-	42.4×33.9×25.4	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	Combined magnification		0.375X	2.625X	0.51X	3.75X	0.765X	5.625X	1.02X	7.5X
						DOF (mm)		4.53	0.17	3.17	0.12	2.11	0.08	1.58	0.06
						FOV (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	Combined magnification		0.476X	3.5X	0.68X	5X	1.02X	7.5X	1.36X	10X
						DOF (mm)		2.55	0.10	1.78	0.07	1.19	0.04	0.89	0.03
						FOV (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	Combined magnification		0.714X	5.25X	1.02X	7.5X	1.53X	11.25X	2.04X	15X
						DOF (mm)		1.13	0.04	0.79	0.03	0.53	0.02	0.40	0.01
						FOV (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	Combined magnification		0.952X	7X	1.36X	10X	2.04X	15X	2.72X	20X
						DOF (mm)		0.64	0.02	0.45	0.02	0.30	0.01	0.22	0.01
						FOV (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

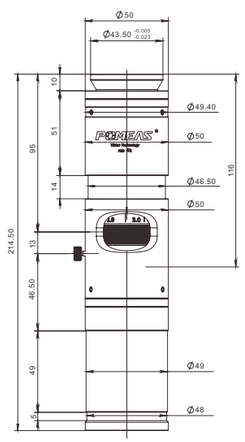
DIMENSIONS

PMS-K75C



unit: mm

PMS-K75D



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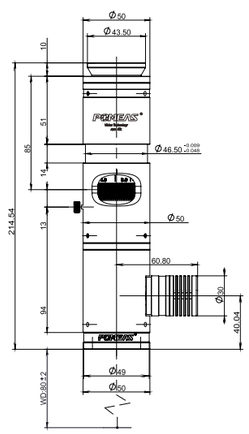
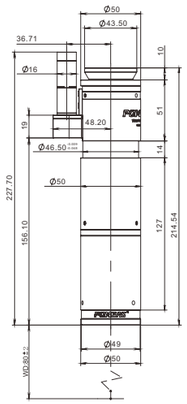


unit: mm

PMS-K75M



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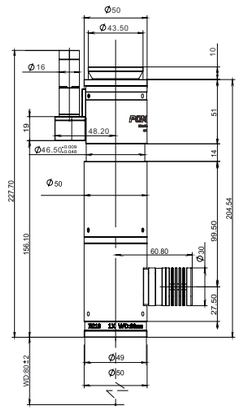

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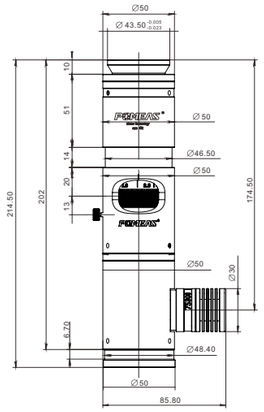
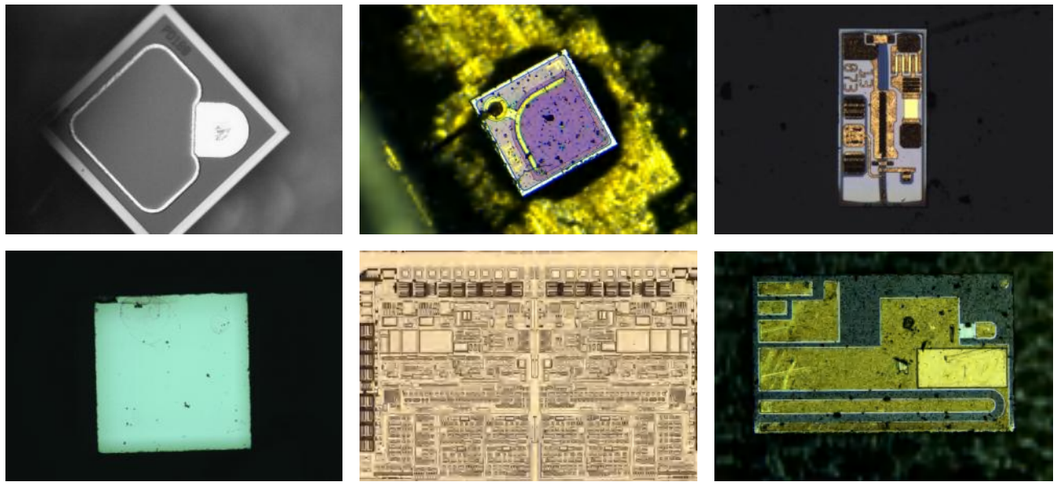


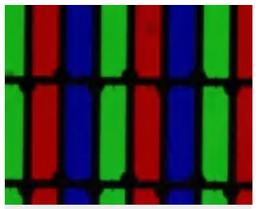
unit: mm

PRODUCT CASES

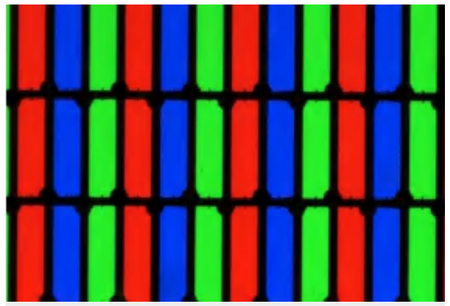


PRODUCT ADVANTAGES

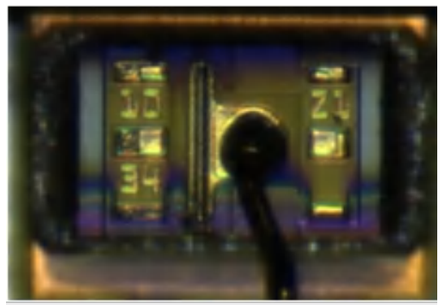
Compatible with 1-inch CCD, Support larger sensor, better light throughput



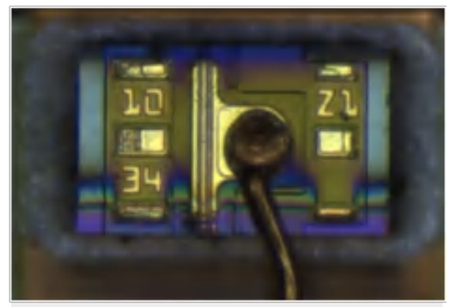
Traditional Zoom Lens



4K Zoom Lens



Traditional Zoom Lens



4K Zoom Lens

Macro Zoom | LZME Series

2/3" | 0.5X~1X | C

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

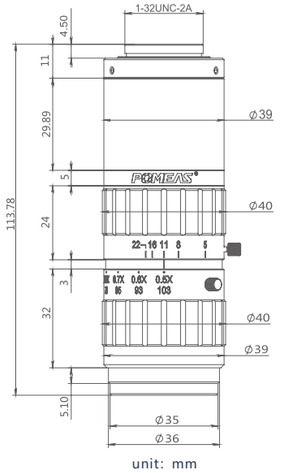
Parameter Table

Product Number		PMS-LZME-0510M					
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					

PRODUCT ADVANTAGES

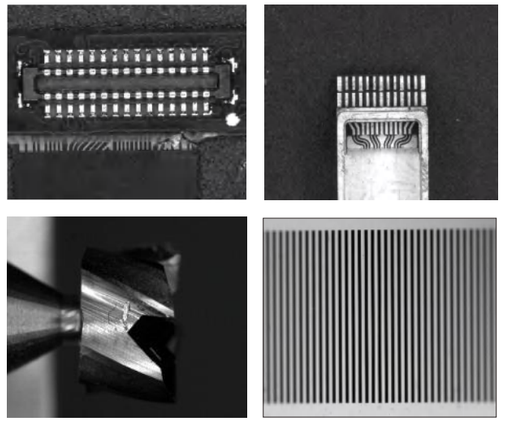
◆ Ultra-low distortion imaging based on telecentric optical path design;
◆ High resolution, superior to other zoom lenses at the same magnification.
◆ The aperture is adjustable, and the depth of field and resolution can be adjusted flexibly according to the requirements of use.
◆ The working distance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

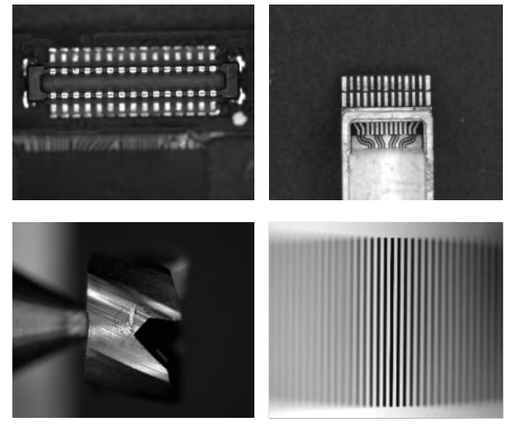
PMS-LZME-0510M



unit: mm

PRODUCT CASES





Linear Zoom Lens **L125/L65 Series**

1" | 0.58X~7.5X | 0.7X~4.5X | C

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

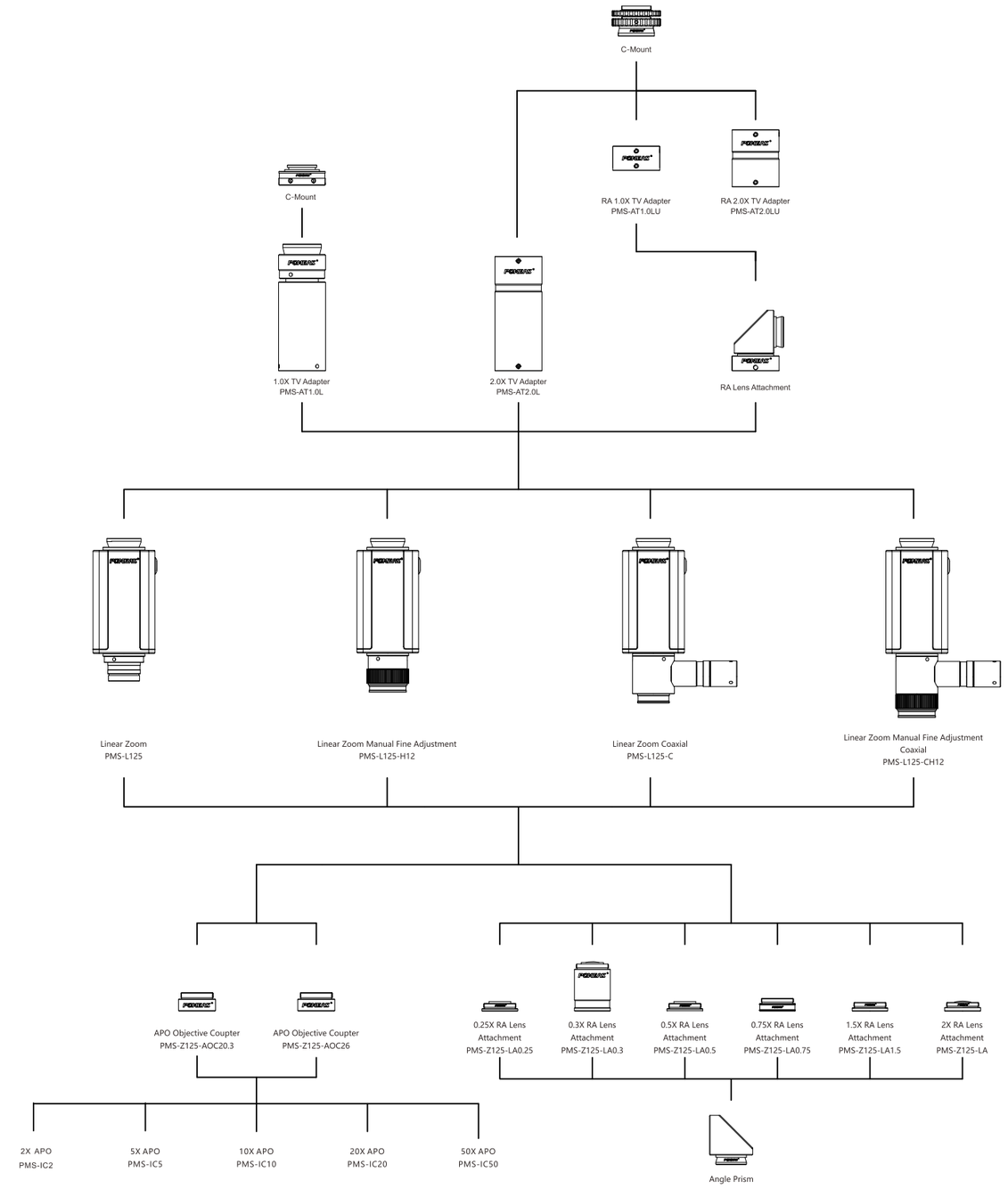
6.5X Linear Zoom Lens Parameter

Working Distance		87±2mm								
Magnification		0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
DOF		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)	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								

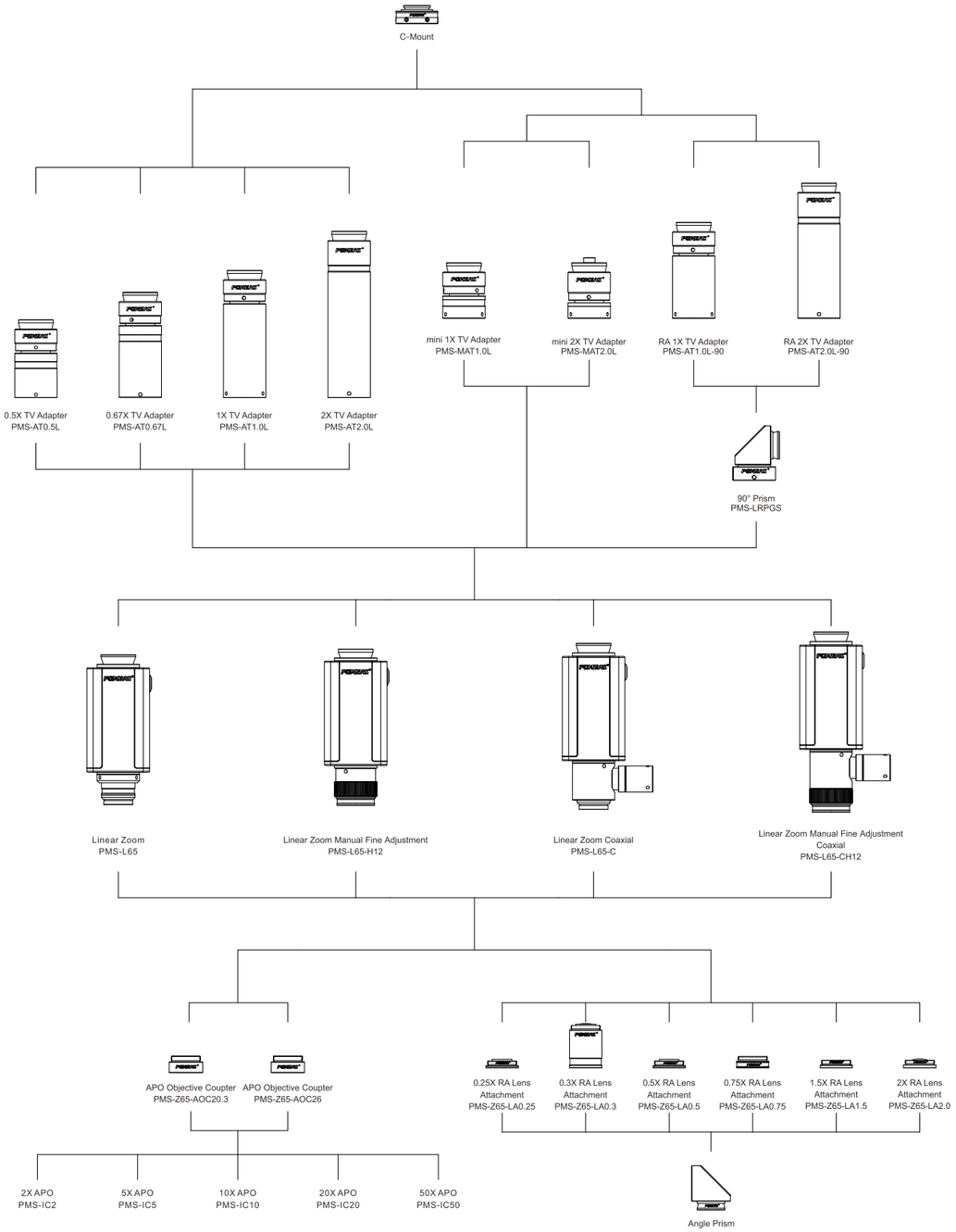
12.5X Linear Zoom Lens Parameter

Working Distance		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		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															

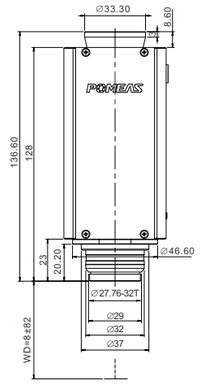
12.5X Linear Zoom Lens Selection Diagram



6.5X Linear Motorized Zoom Lens Selection Diagram

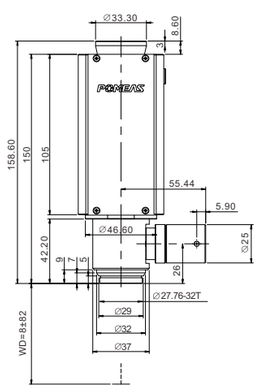


PMS-L125



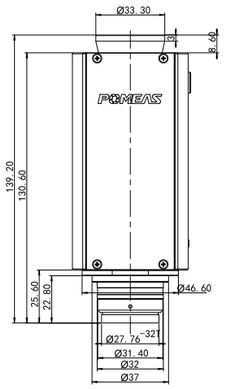
unit: mm

PMS-L125-C



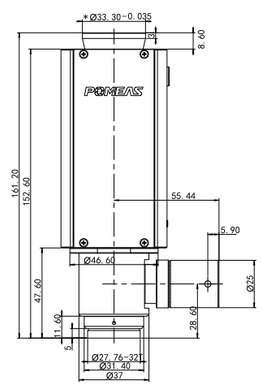
unit: mm

PMS-L65



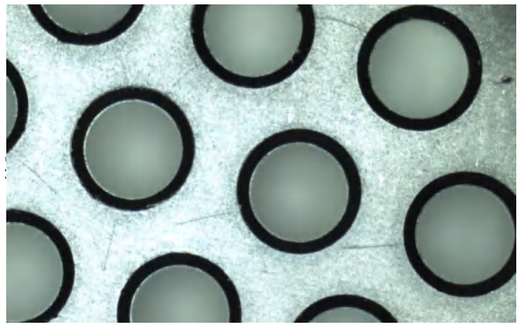
unit: mm

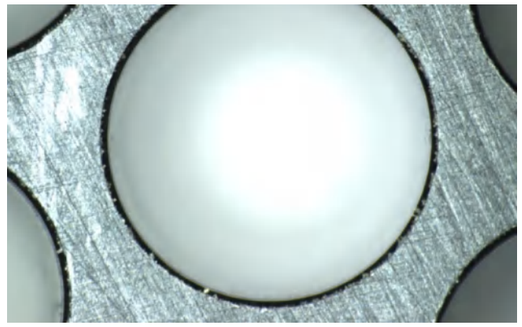
PMS-L65-C

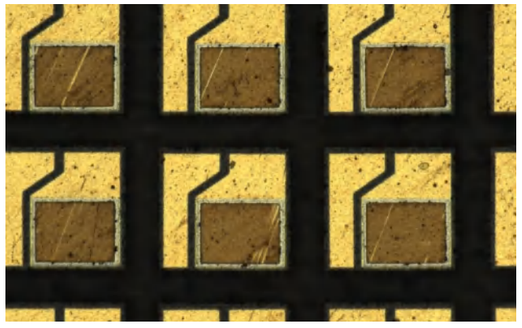


unit: mm

APPLICATION FIELDS







Zoom Lens | Z65 Series

2/3" | 0.7X~4.5X | C

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

LZ Series Parameter

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
	1/3"	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								

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.

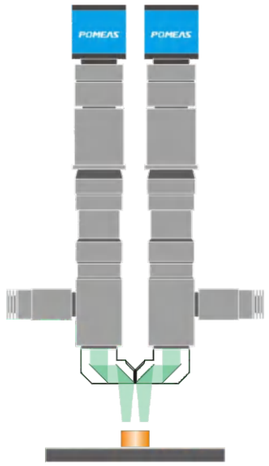
APPLICATION FIELDS

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

CONTROLLER BOX

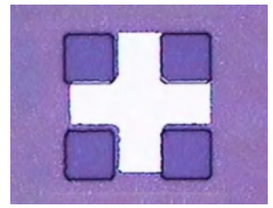
The integrated motorized control system is suitable for all the POMEAS zoom lenses. Motorized controlling system can control single or dual shafts via RS212 or USB. The underlying software code for the OEM platform will also be provided.

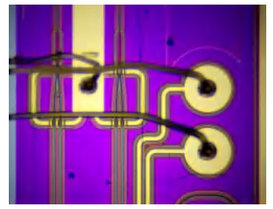
EXAMPLES OF APPLICATION

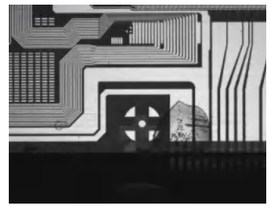


Bonding Machine

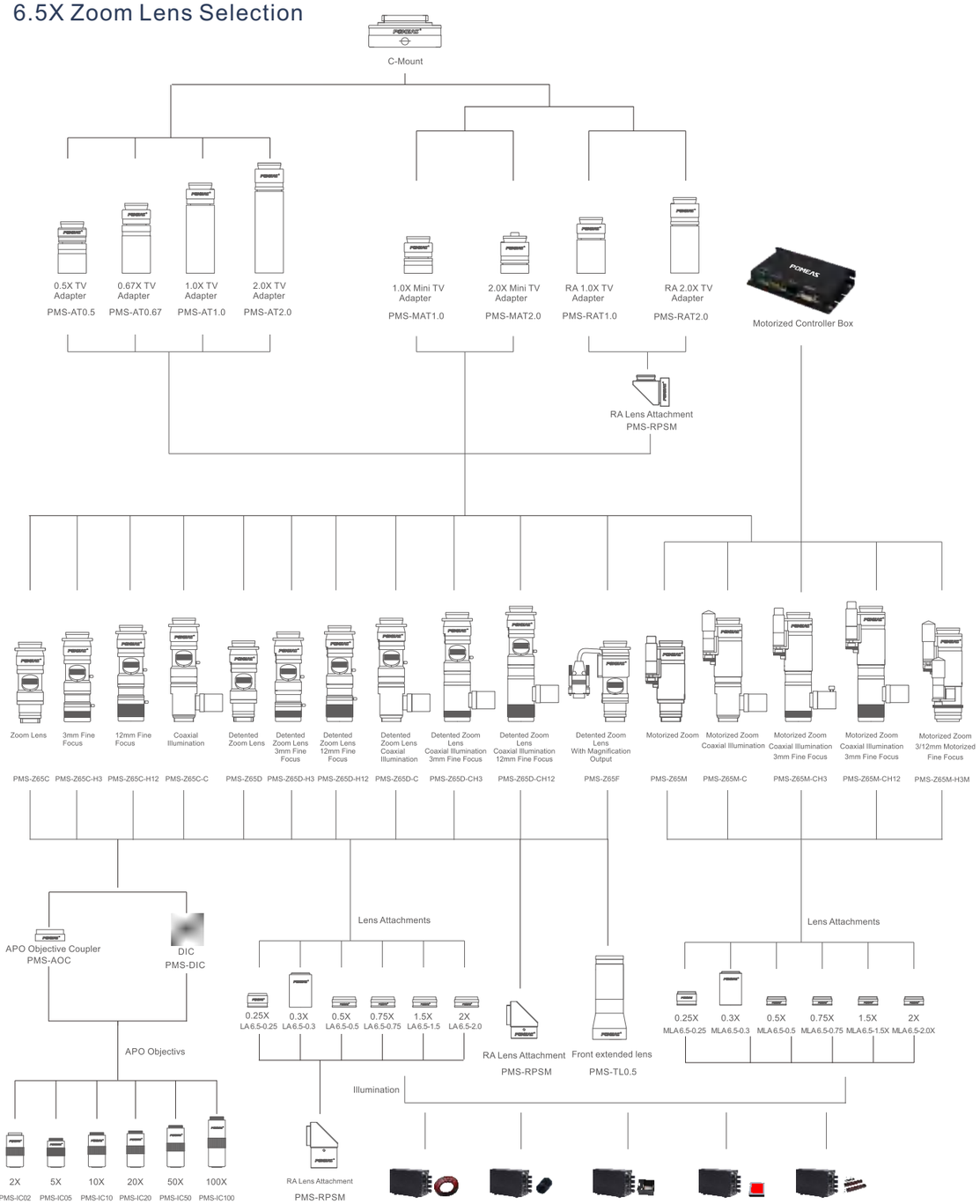
ACTUAL IMAGE

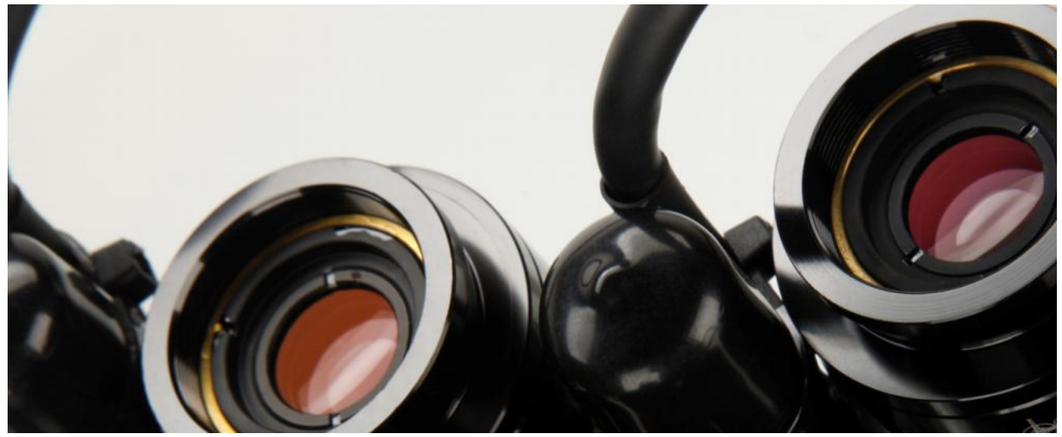






6.5X Zoom Lens Selection

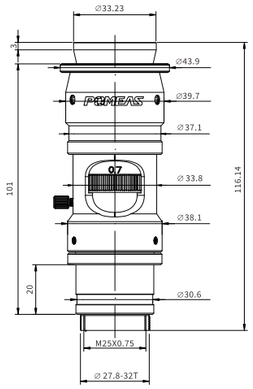




6.5X Zoom L ens Field of View Table

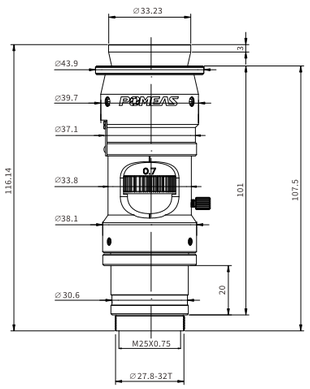
Lens Attachment			0.5X Adapter Tube(PMS-AT0.5)						1.0X Adapter Tube(PMS-AT1.0)						2.0X Adapter Tube(PMS-AT2.0)					
			Low Magnification			High Magnification			Low Magnification			High Magnification			Low Magnification			High Magnification		
			Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (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

PMS-Z65D(A)-MH15



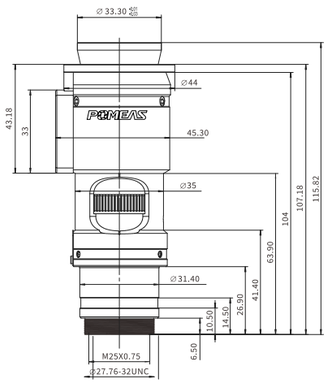
unit : mm

PMS-Z65D



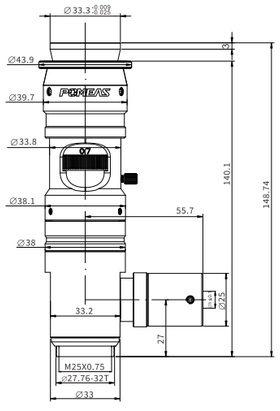
unit : mm

PMS-Z65D-RS9



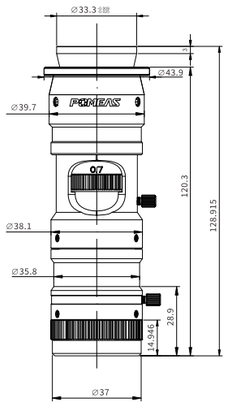
unit : mm

PMS-Z65C-C



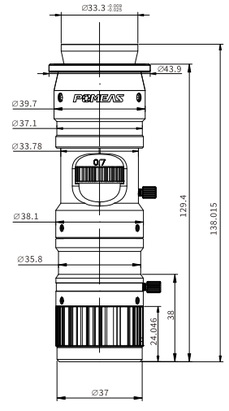
unit : mm

PMS-Z65C-H3



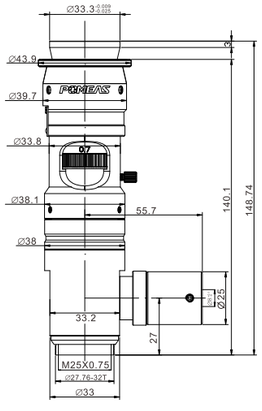
unit : mm

PMS-Z65C-H12



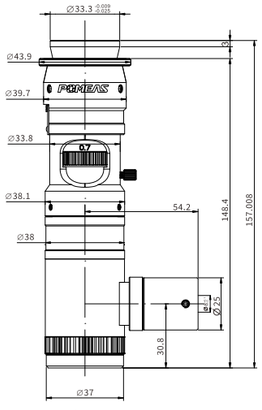
unit : mm

PMS-Z65D-C



unit : mm

PMS-Z65C-CH3



unit : mm

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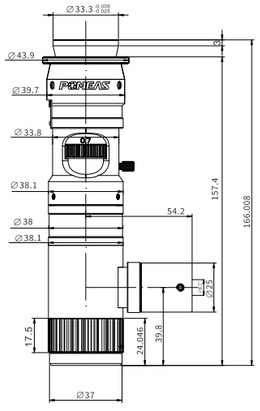
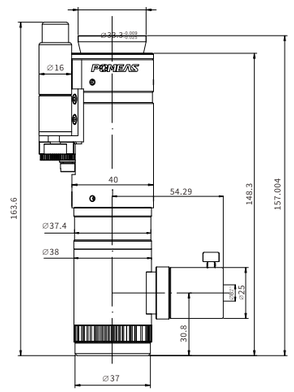


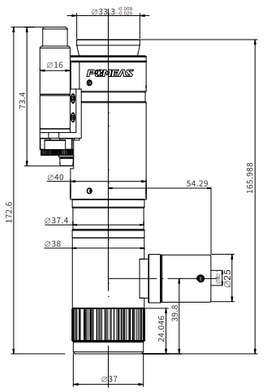
unit : mm

PMS-Z65M-CH3



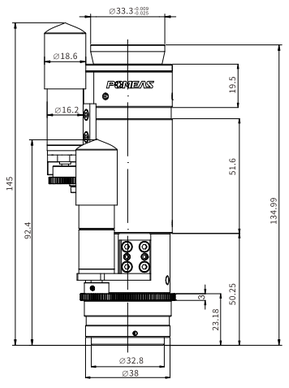
unit : mm

PMS-Z65M-CH12



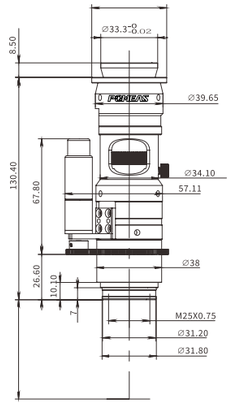
unit : mm

PMS-Z65M



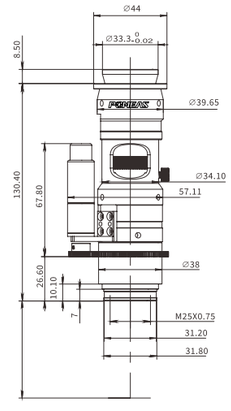
unit : mm

PMS-Z65C(A)



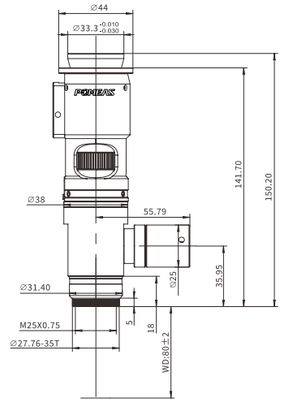
unit : mm

PMS-Z65D(A)-MH15



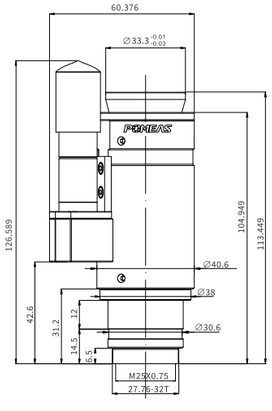
unit : mm

PMS-Z65D(A)-RS9



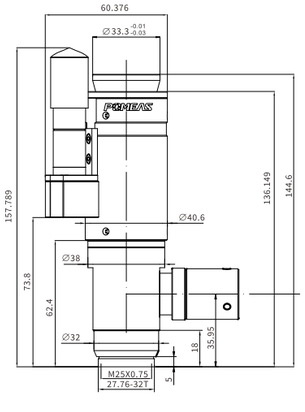
unit : mm

PMS-Z65M(A)



unit : mm

PMS-Z65M(A)-C



unit : mm

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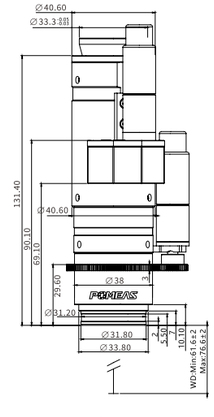


unit : mm

Zoom Lens | Z125 Series

2/3" | 0.58X~7.5X

Support 2/3"target surface, optical magnification 0.58X-7.5X, continuous zoom lens

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															

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

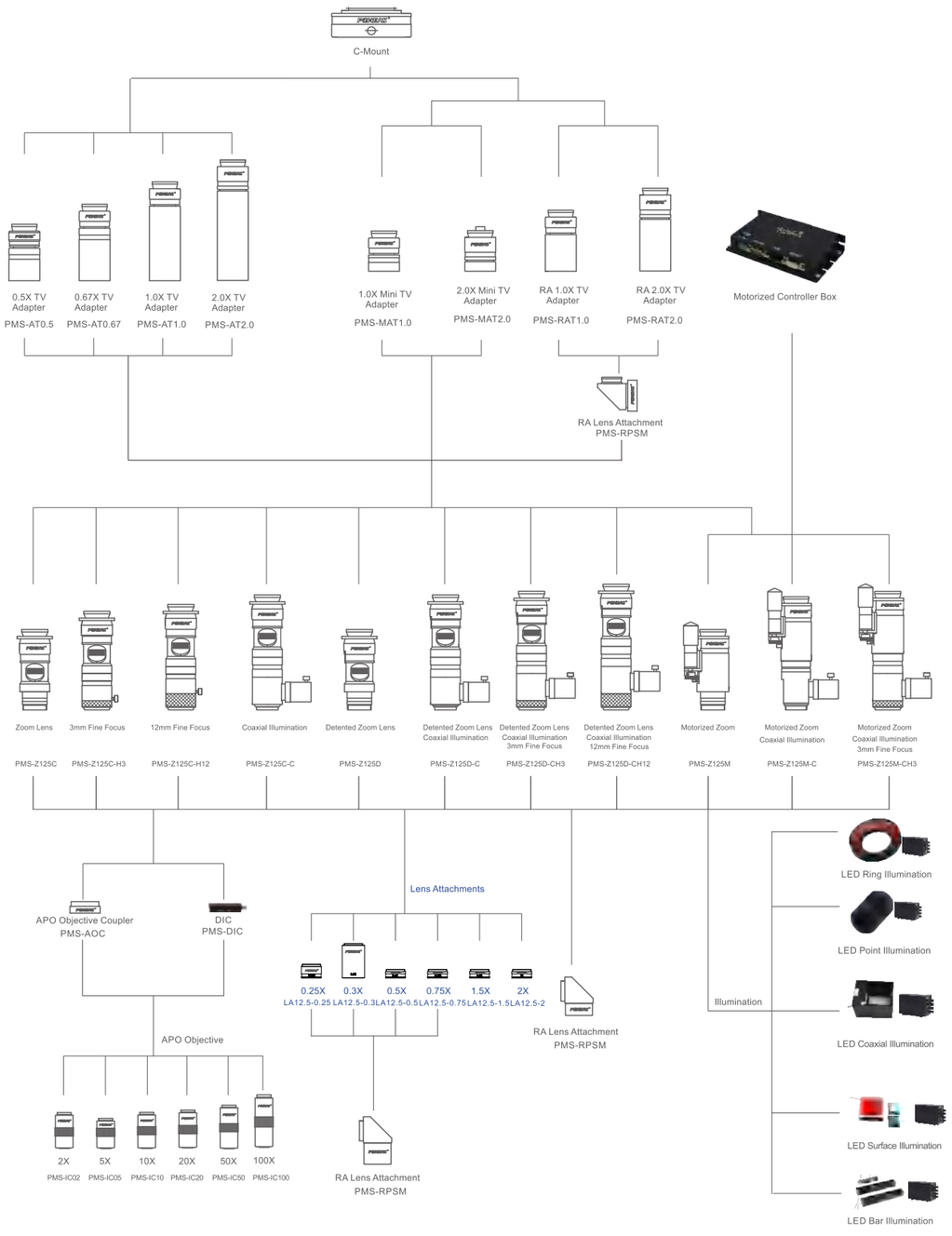
Widely used in biology, electronics, semicon ductor, machine vision and other high-precision industries.

12.5X Zoom Lens Field of View Table

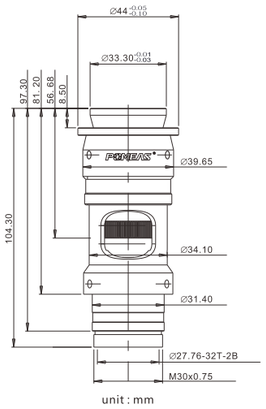
Lens Attachment			0.5X Adapter Tube(PMS-AT0.5)						1.0X Adapter Tube(PMS-AT1.0)						2.0X Adapter Tube(PMS-AT2.0)					
			Low Magnification			High Magnification			Low Magnification			High Magnification			Low Magnification			High Magnification		
			Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (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.

12.5X Zoom Lens Selection

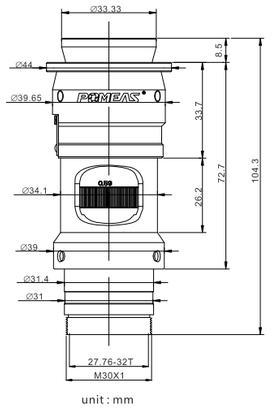


PMS-Z125C



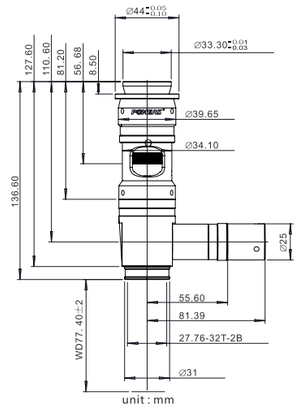
unit : mm

PMS-Z125D



unit : mm

PMS-Z125C



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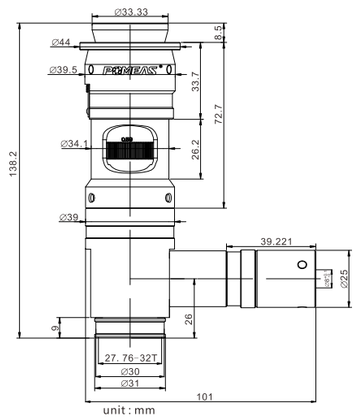
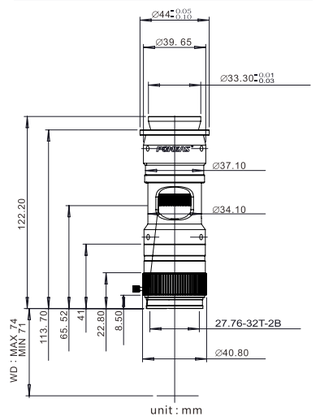
PMS-Z125D-C



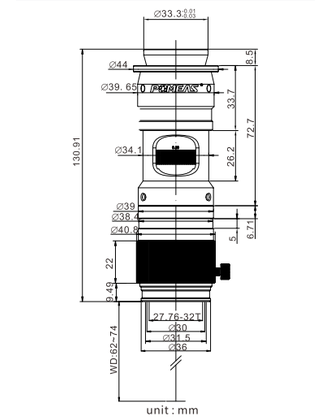
unit : mm

PMS-Z125C-H3



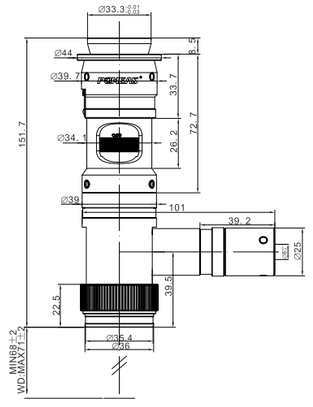
unit : mm

PMS-Z125C-H12



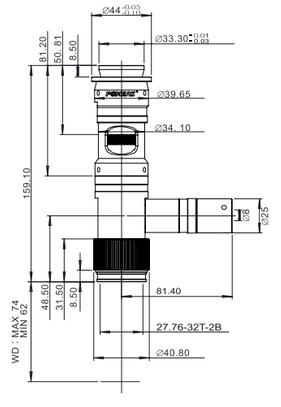
unit : mm

PMS-Z125D-CH3



unit : mm

PMS-Z125D-CH12



unit : mm

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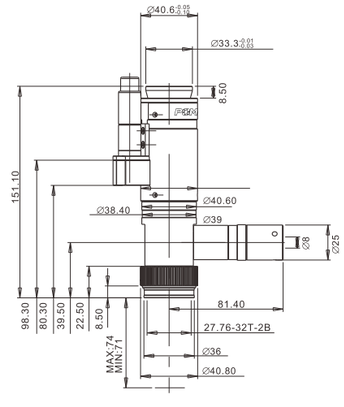

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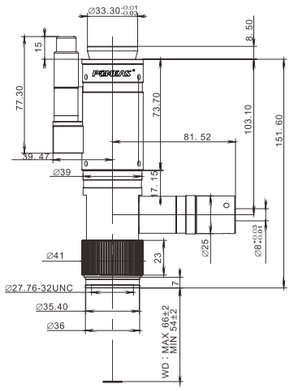
PMS-Z125M-CH12



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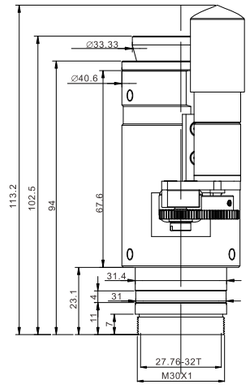
PMS-Z125M



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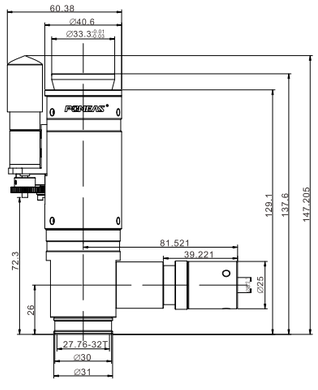
PMS-Z125M-C



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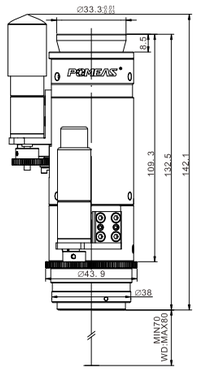
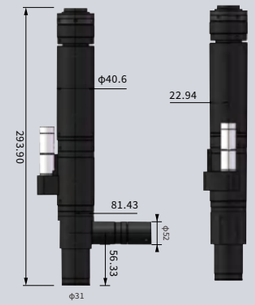
PMS-Z125M-CH12M



unit : mm



NEW

12.5X Zoom Lens | Z12.5 Series

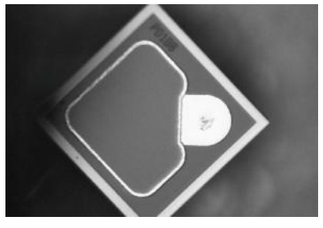
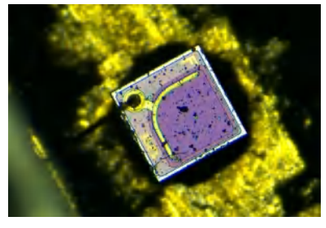
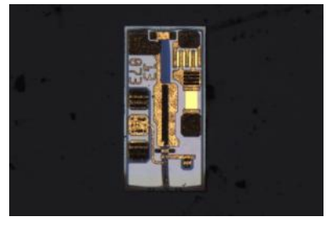
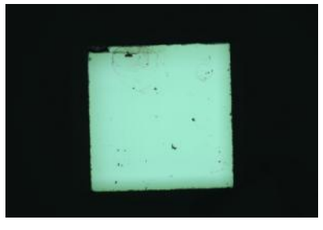
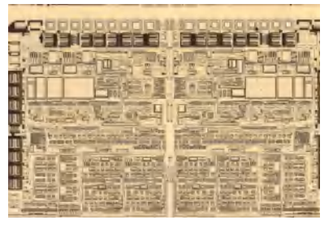
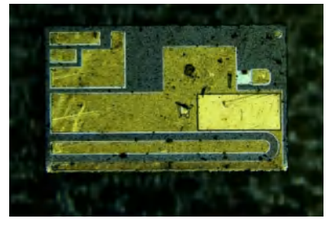
Motorised coaxial | 0.58X~7.5X | C

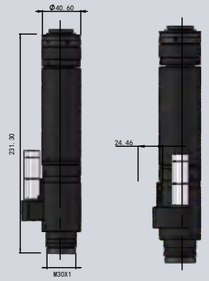
- Precision optical circuit design, high resolution, low distortion, excellent optical performance.
- Ultra-long working distance, large field of view observation range.
- Multi-layer coating technology, reduce stray light and ghosting, provide high quality images.
- Anodised metal parts, more durable.
- Compact and reliable structure design.

12.5X Series Parameter

		PMS-Z125M(L)-E	PMS-Z100M(L)-E	PMS-Z80M(L)-E	PMS-Z65M(L)-E								
Optical Magnification		0.58X	0.6X	0.7X	1X	2X	3X	4X	4.5X	5X	6X	7X	7.5X
Depth Of Field (mm)*1		2.67	2.67	1.90	0.93	0.27	0.15	0.10	0.08	0.07	0.06	0.05	0.05
N.A.		0.025	0.025	0.03	0.043	0.074	0.09	0.1	0.105	0.11	0.11	0.11	0.11
F.NO.		12.00	12.00	11.67	11.63	13.51	16.67	20.00	21.43	22.73	27.27	31.82	34.09
Resolution (μm)		13.42	13.42	11.18	7.80	4.53	3.73	3.36	3.20	3.05	3.05	3.05	3.05
TV Distortion		＜0.08%	＜0.08%	＜0.08%	＜0.02%	＜0.02%	＜0.02%	＜0.03%	＜0.02%	＜0.03%	＜0.03%	＜0.02%	＜0.02%
FOV (mm)	2/3"	18.97x15.17x11.38	18.33x14.67x11.00	15.71x12.57x9.43	11.00x8.80x6.60	5.50x4.40x3.30	3.67x2.93x2.20	2.75x2.20x1.65	2.44x1.96x1.47	2.20x1.76x1.32	1.83x1.47x1.10	1.57x1.26x0.94	1.47x1.17x0.88
	1/2"	13.79x11.03x8.28	13.33x10.67x8.00	11.43x9.14x6.86	8.00x6.40x4.80	4.00x3.20x2.40	2.67x2.13x1.60	2.00x1.60x1.20	1.78x1.42x1.07	1.60x1.28x0.96	1.33x1.07x0.80	1.14x0.91x0.69	1.07x0.85x0.64
	1/3"	10.34x8.28x6.21	10.00x8.00x6.00	8.57x6.86x5.14	6.00x4.80x3.60	3.00x2.40x1.80	2.00x1.60x1.20	1.50x1.20x0.90	1.33x1.07x0.80	1.20x0.96x0.72	1.00x0.80x0.60	0.86x0.69x0.51	0.80x0.64x0.48
Working distance		77.4±2mm											
Maximum image plane		2/3"											
Mode of zoom		Electric Powered											
Mount		C-mount											

PRODUCT CASES



NEW

12.5X Zoom Lens Z12.5 Series

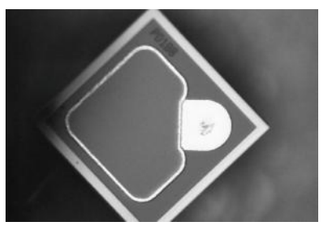
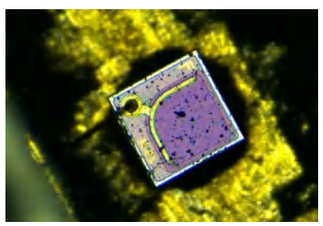
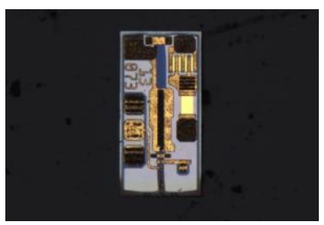
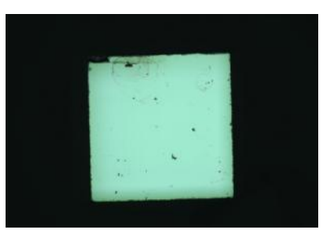
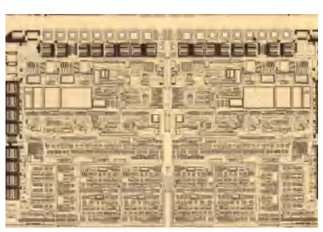
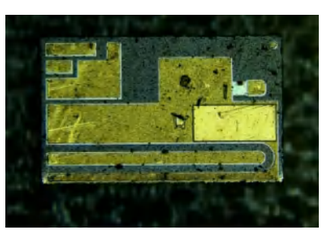
Motorised coaxial | 0.58X~7.5X | C

- Precision optical circuit design, high resolution, low distortion, excellent optical performance.
- Ultra-long working distance, large field of view observation range.
- Multi-layer coating technology, reduce stray light and ghosting, provide high quality images.
- Anodised metal parts, more durable.
- Compact and reliable structure design.

12.5X Series Parameter

		PMS-Z125M-E											
		PMS-Z100M-E											
		PMS-Z80ME											
		PMS-Z65ME											
Optical Magnification		0.58X	0.6X	0.7X	1X	2X	3X	4X	4.5X	5X	6X	7X	7.5X
Depth Of Field (mm)*1		2.67	2.67	1.90	0.93	0.27	0.15	0.10	0.08	0.07	0.06	0.05	0.05
N.A.		0.025	0.025	0.03	0.43	0.74	0.09	0.10	0.105	0.11	0.11	0.11	0.11
F.NO.		12.00	12.00	11.67	11.63	13.51	16.67	20.00	21.43	22.73	27.27	31.82	34.09
Resolution (μm)		13.42	13.42	11.18	7.80	4.53	3.73	3.36	3.20	3.05	3.05	3.05	3.05
TV Distortion		<0.08%	<0.08%	<0.08%	<0.02%	<0.02%	<0.02%	<0.03%	<0.02%	<0.03%	<0.03%	<0.02%	<0.02%
FOV (mm)	2/3"	18.97x15.17x11.38	18.33x14.67x11.00	15.71x12.57x9.43	11.00x8.80x6.60	5.50x4.40x3.30	3.67x2.93x2.20	2.75x2.20x1.65	2.44x1.96x1.47	2.20x1.76x1.32	1.83x1.47x1.10	1.57x1.26x0.94	1.47x1.17x0.88
	1/2"	13.79x11.03x8.28	13.33x10.67x8.00	11.43x9.14x6.86	8.00x6.40x4.80	4.00x3.20x2.40	2.67x2.13x1.60	2.00x1.60x1.20	1.78x1.42x1.07	1.60x1.28x0.96	1.33x1.07x0.80	1.14x0.91x0.69	1.07x0.85x0.64
	1/3"	10.34x8.28x6.21	10.00x8.00x6.00	8.57x6.86x5.14	6.00x4.80x3.60	3.00x2.40x1.80	2.00x1.60x1.20	1.50x1.20x0.90	1.33x1.07x0.80	1.20x0.96x0.72	1.00x0.80x0.60	0.86x0.69x0.51	0.80x0.64x0.48
Working distance		77.4±2mm											
Maximum image plane		2/3"											
Mode of zoom		Motorised Control											
Mount		C-mount											

PRODUCT CASES

14X Zoom Lens Z14 Series

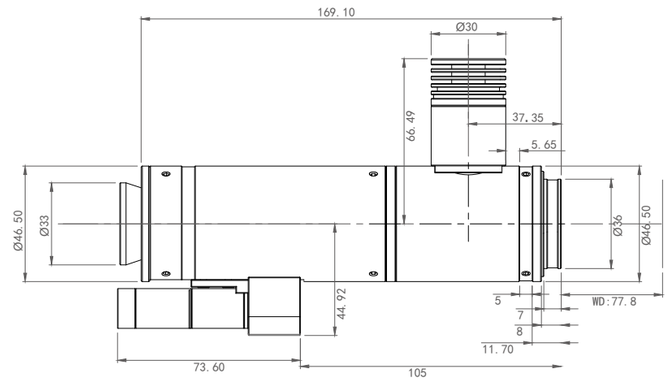
Coax | 0.55X~7.6X | C

- Higher zoom ratio, low magnification can observe a larger field of view, high magnification has a higher resolution;
- Ultra-low distortion design, no distortion correction is needed to obtain high precision data;
- Fully support 2/3 inch target surface, high uniformity of imaging screen;
- With absolute zero control technology, to ensure that the reset back to zero magnification consistency;
- The product is precisely tuned to ensure that each shipping lens has the best performance.

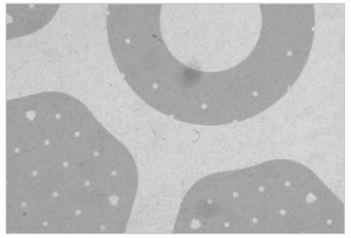
PMS-Z14 Series Parameter

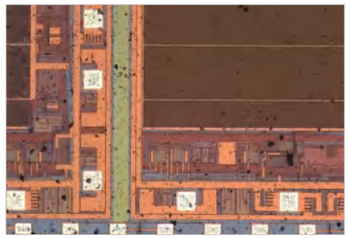
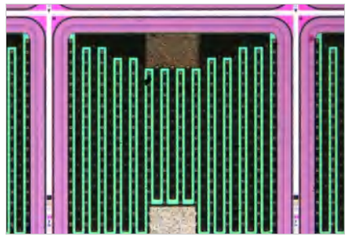
Optical Magnification	0.55X~7.6X								
Working distance (mm)	77.8±2mm								
Optical Magnification	0.55X	1X	2X	3X	4X	5X	6X	7X	7.6X
Depth Of Field (mm)*1	3.16	0.98	0.26	0.14	0.09	0.07	0.06	0.05	0.04
N.A.	0.023	0.041	0.078	0.096	0.11	0.12	0.12	0.12	0.12
F.NO.	11.96	12.20	12.82	15.63	18.18	20.83	25.00	29.17	31.67
Resolution (μm)	14.59	8.18	4.30	3.49	3.05	2.80	2.80	2.80	2.80
TV Distortion	<0.02%	<0.02%	<0.04%	<0.04%	<0.04%	<0.02%	<0.02%	<0.02%	<0.02%
FOV (mm) 1/3"	10.91×8.73×6.55	6.00×4.80×3.60	3.00×2.40×1.80	2.00×1.60×1.20	1.50×1.20×0.90	1.20×0.96×0.72	1.00×0.80×0.60	0.86×0.69×0.51	0.79×0.63×0.47
FOV (mm) 1/2"	14.55×11.64×8.73	8.00×6.40×4.80	4.00×3.20×2.40	2.67×2.13×1.60	2.00×1.60×1.20	1.60×1.28×0.96	1.33×1.07×0.80	1.14×0.91×0.69	1.05×0.84×0.63
FOV (mm) 2/3"	20.00×16.00×12.00	11.00×8.80×6.60	5.50×4.40×3.30	3.67×2.93×2.20	2.75×2.20×1.65	2.20×1.76×1.32	1.83×1.47×1.10	1.57×1.26×0.94	1.45×1.16×0.87
Working distance	2/3"								
Maximum image plane	Coaxial Lighting								
Mode of zoom	Manual/Electric								
Mount	C-Mount								

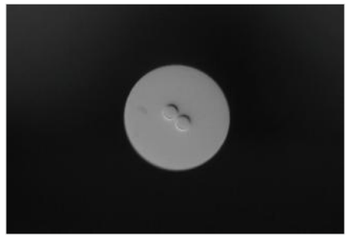
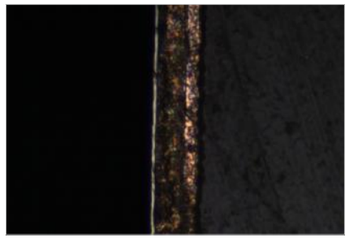
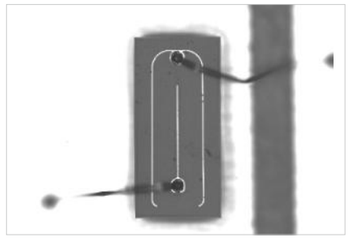
DIMENSIONS



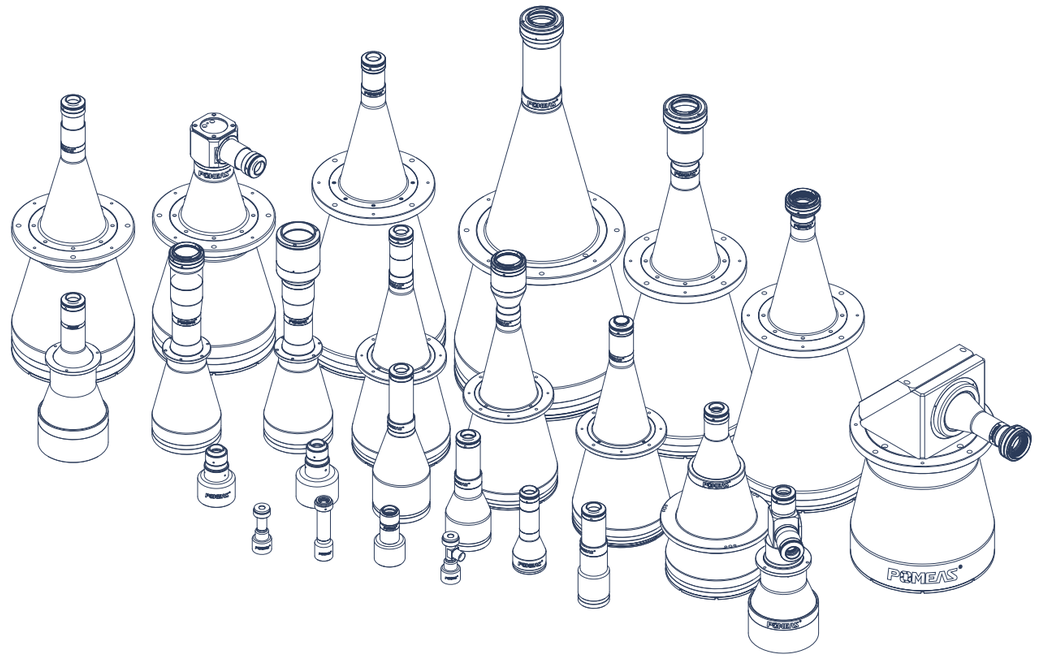
PRODUCT CASES




TELECENTRIC LENS SERIES



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.

High Resolution Telecentric Lens

LHD Series

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

High Resolution Telecentric Lens

Code	Magni-Fication	FOV(mm)(HxV)							W.D. (mm)	F.No.	TV Distortion	DOF (mm)	N.A.	Resolution (mm)	Max Sensor Size	Mount	Ligh	Working Temperature
		1/3"	1/2.5"	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	——	-10°C~+50°C
PMS-037LHD150-C	0.37X	13.0x9.7	15.5x11.6	17.3x13.0	19.3x14.5	23.8x17.8	34.6x25.9	38.1x28.5	150	6 (Adjustable)	0.02%	3.6 (Adjustable)	0.03 (Adjustable)	11.18 (Adjustable)	1.1"	C	Coaxial illumination	-10°C~+50°C

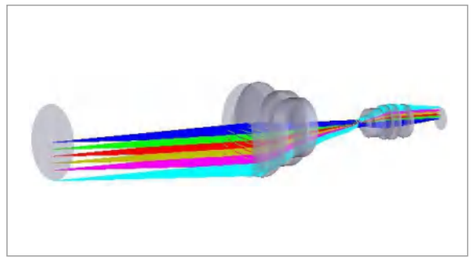
PRODUCT ADVANTAGES

1. Support Max. 1.1" 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.

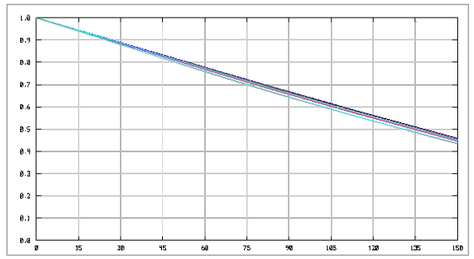
APPLICATION FIELDS

Widely used in factory automation and machine vision field

Light Path Design



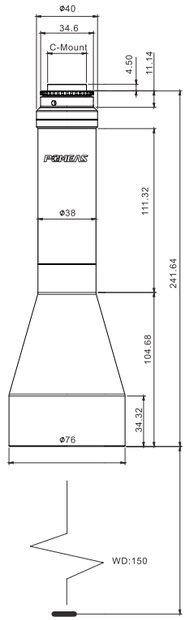
MTF Curve



DIMENSIONS

PMS-037LHD150

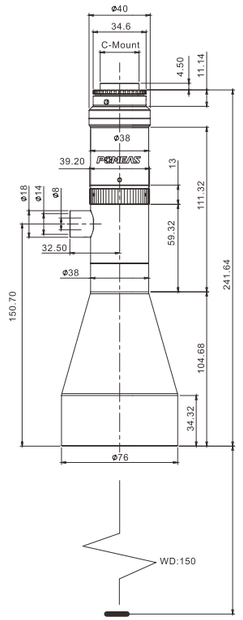
Magnification:0.37X
Working distance:150mm



Magnification : 0.37X	Ligh : --
Working Distance : 150MM	Working Distance : -10°C~+50°C
F No. : 6	FOV (MM) (HxV)
Tv Distortion : 0.02%	1/2'' 17.3 X 13.0
DOF : 3.6mm	1/1.8'' 19.3 X 14.5
N.A. : 0.03	2/3'' 23.8 X 17.8
Resolution (μm) : 5.59	1'' 34.6X 25.6
Max. Sensor Size : 2/3"	1.1'' 38.1 X 28.5
Mount : C-Mount	

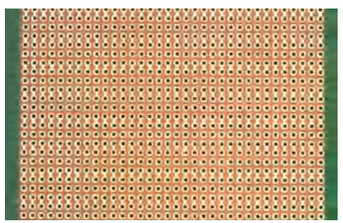
PMS-037LHD150-C

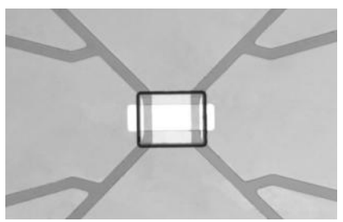
Magnification:0.37X
Working distance:150mm



Magnification : 0.37X	Ligh : Coaxial illumination
Working Distance : 150MM	Working Distance : -10°C~+50°C
F No. : 6 (Adjustable)	FOV (MM) (HxV)
Tv Distortion : 0.02%	1/2'' 17.3 X 13.0
DOF : 3.6mm (Adjustable)	1/1.8'' 19.3 X 14.5
N.A. : 0.03 (Adjustable)	2/3'' 23.8 X 17.8
Resolution (μm) : 11.18(Adjustable)	1'' 34.6X 25.6
Max. Sensor Size : 2/3"	1.1'' 38.1 X 28.5
Mount : C-Mount	

PRODUCT CASES





High Resolution Telecentric Lens

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

Specification

Code	Magni-Fication	Field Of View(HxV)(mm)					W.D. (mm)	F.No.	TV Distortion	DOF (mm)	N.A.	Resolution (mm)	Max Sensor Size	Mount	Illumination	Working Temperature
		1/2"	1/1.8"	2/3"	1"	4/3"										
PMS-0063HT416	0.063X	101.6x76.2	113.4x85.1	139.7x104.8	203.2x152.4	---	416	6.0	0.01%	120.73	0.005	63.80	1"	C	---	-10°C~+50°C
PMS-0076HT468	0.076X	84.2x63.2	94.0x70.5	115.8x86.8	168.4x126.3	---	468	3.5	0.02%	48.37	0.011	57.16	1"	C	---	-10°C~+50°C
PMS-0088HT398	0.088X	72.7x54.5	81.2x60.9	100.0x75.0	145.5x109.1	---	398	6.0	0.01%	61.43	0.007	45.34	1"	C	---	-10°C~+50°C
PMS-0108HT129	0.108X	59.3x44.4	66.2x49.6	81.5x61.1	118.5x88.9	---	129	5.0	0.02%	34.29	5	31.06	1"	C	---	-10°C~+50°C
PMS-0118HT261	0.118X	54.2x40.7	60.6x45.4	74.6x55.9	108.5x81.4	---	261	5.6	0.01%	32.18	0.011	31.85	1"	C	---	-10°C~+50°C
PMS-016HT189	0.16X	40.0x30.0	44.7x33.5	55.0x41.3	80.0x60.0	---	189	6.0	0.01%	18.75	0.013	25.17	1"	C	---	-10°C~+50°C
PMS-02HT180	0.20X	32.0x24.0	35.7x26.8	44.0x33.0	64.0x48.0	---	180	6.0 (Adjustable)	0.01%	12.0 (Adjustable)	0.017 (Adjustable)	20.14 (Adjustable)	1"	C	---	-10°C~+50°C
PMS-02HT180-S	0.20X	32.0x24.0	35.7x26.8	44.0x33.0	64.0x48.0	---	180		0.01%				1"	C	---	-10°C~+50°C

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

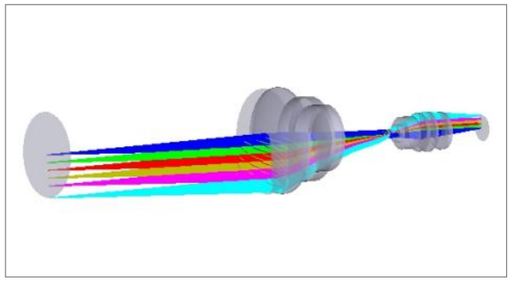
PRODUCT ADVANTAGES

- Support 5M 2/3" camera.
- Depth of field can be increased according to the requirements, the maximum depth of field can reach 10mm.
- Coaxial light illumination is optional, uniform illuminationWithin the depth of field, the magnification and target image size remain unchanged.
- Reasonable size of front-end interface design, a variety of ring shadowless light source can be selected.

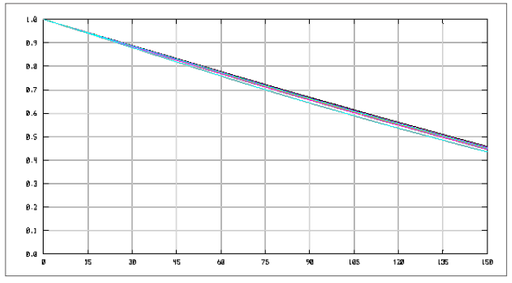
APPLICATION FIELDS

Can be used in automation industry and machine vision industry.

Light Path Design

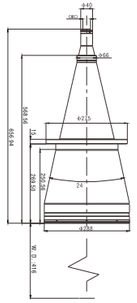


MTF Curve



PMS-0063HT416

Magnification:0.063X
Working distance:416mm



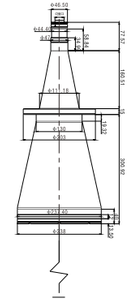
Unit:mm

F No. : 6.0
Tv Distortion : 0.01%
DOF : 120.73 mm
N.A. : 0.005
Resolution (μm) : 63.80
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
101.6X76.2	113.4X85.1	139.7X104.8	203.2x152.4

PMS-0076HT468

Magnification:0.076X
Working distance:468mm



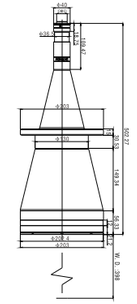
Unit:mm

F No. : 3.5
Tv Distortion : 0.02%
DOF : 48.37 mm
N.A. : 0.011
Resolution (μm) : 57.16
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
84.2X63.2	94.0x70.5	115.8X86.8	168.4X126.3

PMS-0088HT398

Magnification:0.088X
Working distance:398mm



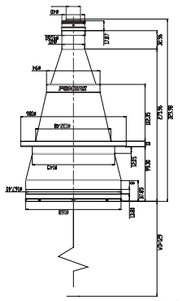
Unit:mm

F No. : 6.0
Tv Distortion : 0.01%
DOF : 61.43 mm
N.A. : 0.007
Resolution (μm) : 45.34
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
72.7X54.5	81.2X60.9	100.0X75.0	145.5x109.1

PMS-0108HT129

Magnification:0.108X
Working distance:129mm



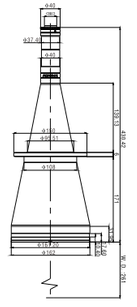
Unit:mm

F No. : 5
Tv Distortion : 0.02%
DOF : 34.29 mm
N.A. : 0.0108
Resolution (μm) : 31.06
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
59.3X44.4	66.2X49.6	81.5X61.1	118.5X88.9

PMS-0118HT261

Magnification:0.118X
Working distance:261mm



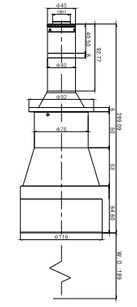
Unit:mm

F No. : 5.6
Tv Distortion : 0.01%
DOF : 32.18 mm
N.A. : 0.011
Resolution (μm) : 31.85
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
54.2X40.7	60.6X45.4	74.6X55.9	108.5x81.4

PMS-016HT189

Magnification:0.16X
Working distance:189mm



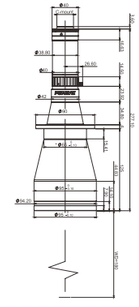
Unit:mm

F No. : 6.0
Tv Distortion : 0.01%
DOF : 18.75 mm
N.A. : 0.013
Resolution (μm) : 25.17
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
40.0X30.0	44.7X33.5	55.0X41.3	80.0x60.0

PMS-02HT180-S

Magnification:0.2X
Working distance:180mm



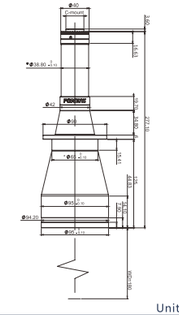
Unit:mm

F No. : 6.0(Adjustable)
Tv Distortion : 0.01%
DOF : 12.0 mm(Adjustable)
N.A. : 0.017(Adjustable)
Resolution (μm) : 20.14(Adjustable)
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
32.0X24.0	35.7X26.8	44.0x33.0	64.0x48.0

PMS-02HT180

Magnification:0.2X
Working distance:180mm



Unit:mm

F No. : 6.0(Adjustable)
Tv Distortion : 0.01%
DOF : 12.0 mm(Adjustable)
N.A. : 0.017(Adjustable)
Resolution (μm) : 20.14(Adjustable)
Max. Sensor Size : 1"
Mount : C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV MM (HxV ( )			
1/2"	1/1.8"	2/3"	1"
32.0X24.0	35.7X26.8	44.0x33.0	64.0x48.0

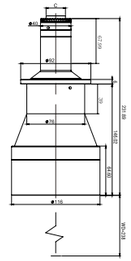
Parameter Table High Telecentric

Code	Magni-Fication	Field Of View(HxV)(mm) 1/3"	1/2"	1/1.8"	2/3"	W.D. (mm)	F.No.	TV Distortion	DOF (mm)	N.A.	Resolution (mm)	Illumination	Max Sensor Size	Mount	Working Temperature
PMS-DTC23180	0.061X	78.7x59.0	104.9x78.7	117.2x87.9	144.3x108.2	398	8	0.01%	171.97	0.0038	87.99	——	2/3"	C-Mount	-10°~+50°C
PMS-DTC23100-A	0.088X	54.5*40.9	72.7x54.5	80.6x60.5	φ100	120	5.6	-0.022%	20	——	45.8	——	2/3"	C-Mount	-10°~+50°C
PMS-DTC23100-D	0.088X	54.5x40.9	72.7*54.5	81.2x60.9	φ100	238	5.6	-0.022%	16	——	30.5	——	2/3"	C-Mount	-10°~+50°C
PMS-017HT110	0.17X	28.2x21.2	37.6x28.2	42.0x31.5	——	110	4.048	0.01%	11.2	0.021	16	——	1/1.8"	C-Mount	-10°~+50°C
PMS-02HT110	0.2X	24.0x18.0	32.0x24.0	35.7x26.8	44.0x33.0	110	4.99	0.02%	10	0.02	16.78	——	2/3"	C-Mount	-10°~+50°C
PMS-023HT90	0.23X	20.9x15.7	27.8x20.9	31.1x23.3	38.3x28.7	90	4.79	0.02%	7.25	0.024	13.98	——	2/3"	C-Mount	-10°~+50°C
PMS-03HT110 PMS-03HT110-C	0.3X	16.0x12.0	21.3x16.0	23.8x17.9	29.3x22.0	110	4.99	0.01%	4.44	0.03	11.18	——	2/3"	C-Mount	-10°~+50°C
PMS-05HT150 PMS-05HT150-C	0.5X	9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2	110	9.26	0.01%	2.96	0.027	12.43	Coaxial	2/3"	C-Mount	-10°~+50°C
PMS-05HT110 PMS-05HT110-C	0.5X	9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2	150	13	0.03%	4.21	0.019	17.66	Coaxial	2/3"	C-Mount	-10°~+50°C
PMS-1HT110 PMS-1HT110-C	1.0X	4.8x3.6	6.4x4.8	7.1x5.4	8.8x6.6	110	11	0.02%	0.89	0.045	7.46	Coaxial	2/3"	C-Mount	-10°~+50°C
PMS-1.2HT110 PMS-1.2HT110-C	1.2X	4.0x3.0	5.3x4.0	6.0x4.5	7.3x5.5	110	12	0.01%	0.67	0.05	6.71	Coaxial	2/3"	C-Mount	-10°~+50°C
PMS-1.5HT110 PMS-1.5HT110-C	1.5X	3.2x2.4	4.3x3.2	4.8x3.6	5.9x4.4	110	12.5	0.01%	0.44	0.06	5.59	Coaxial	2/3"	C-Mount	-10°~+50°C
PMS-2HT110 PMS-2HT110-C	2.0X	2.4x1.8	3.2x2.4	3.6x2.7	4.4x3.3	110	13.5	0.03%	0.27	——	4.53	Coaxial	2/3"	C-Mount	-10°~+50°C
PMS-2HT65 PMS-2HT65-C-S	2.0X	2.4x1.8	3.2x2.4	——	——	65	F6.6 (Adjustable)	0.05%	0.13 (Adjustable)	0.152 (Adjustable)	22 (Adjustable)	Coaxial	1/2"	C-Mount	-10°~+50°C

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

PMS-DTC23180

Magnification:0.061X
Working distance:398mm



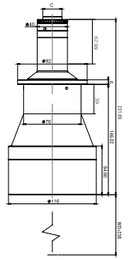
Unit:mm

F No. : 8
Tv Distortion : 0.01%
DOF : 171.97 mm
Central MTF @50ip/mm: > 50%
Resolution (μm) : 87.99
Max. Sensor Size : 2/3"
Objective Side Telecentricity: < 0.02°
Image Side Telecentricity: < 0.06°
Length : 479.22
Dia./Width : 203 mm
Mount : C-Mount

FOV (MM) (HxV)			
1/3"	1/2"	2/3"	1"
78.7X59	104.9X78.7	144.3X108.2	----

PMS-DTC23100-D

Magnification:0.088X
Working distance:238mm



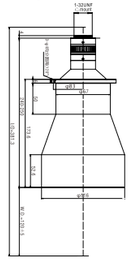
Unit:mm

F No. : 5.6
Tv Distortion : -0.022%
DOF : 16 mm
Central MTF @50ip/mm: > 75%
Resolution (μm) : 30.5
Max. Sensor Size : 2/3"
Objective Side Telecentricity: < 0.04°
Image Side Telecentricity: < 0.1°
Length : 232
Dia./Width : 116 mm
Mount : C-Mount

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

PMS-DTC23100-A

Magnification:0.088X
Working distance:120mm



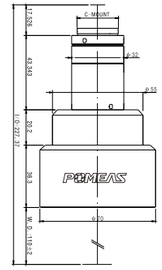
Unit:mm

F No. : 5.6
Tv Distortion : -0.022%
DOF : 20 mm
Central MTF @70ip/mm: > 85%
Resolution (μm) : 45.8
Max. Sensor Size : 2/3"
Objective Side Telecentricity: < 0.04°
Image Side Telecentricity: < 0.1°
Length : 240
Dia./Width : 116 mm
Mount : C-Mount

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

PMS-017HT110

Magnification:0.17X
Working distance:110mm



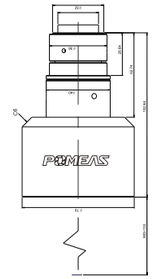
Unit:mm

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 :Coaxial
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-02HT110

Magnification:0.2X
Working distance:110mm



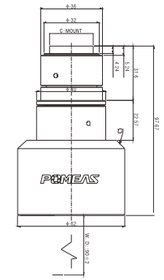
Unit:mm

F No. : 4.99
TV Distortion:0.02%
DOF:10.00mm
N.A.:0.02
Resolution(μm): 16.78
Max.Sensor Size: 2/3"
Mount : C-Mount
Lihting: ----
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

Magnification:0.23X
Working distance:90mm



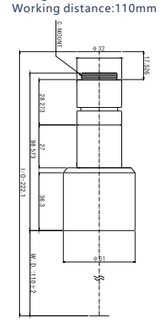
Unit:mm

F No. : 4.99
TV Distortion:0.02%
DOF:7.25mm
N.A.:0.024
Resolution(μm): 13.98
Max.Sensor Size: 2/3"
Mount : C-Mount
Lihting: ----
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	38.3X28.7

PMS-03HT110

Magnification:0.3X
Working distance:110mm



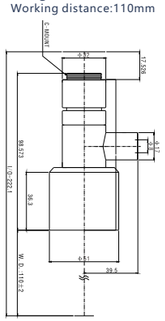
Unit:mm

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 :Coaxial
Working Temperature: -10°C~+50°C

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

PMS-03HT110H-C

Magnification:0.3X
Working distance:110mm



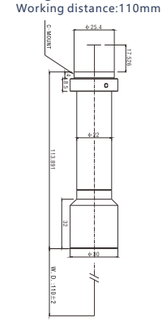
Unit:mm

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 :Coaxial
Working Temperature: -10°C~+50°C

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

PMS-1HT110

Magnification:1.0X
Working distance:110mm



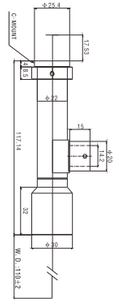
Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
6.4X4.8	7.1X5.4	8.8X6.6	----

PMS-1HT110-C

Magnification:1.0X
Working distance:110mm

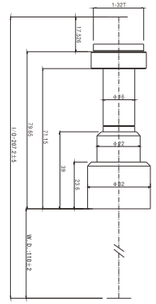


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
6.4X4.8	7.1X5.4	8.8X6.6	----

PMS-05HT110

Magnification:0.5X
Working distance:110mm

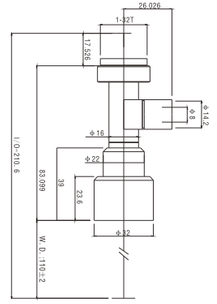


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
12.8X9.6	14.3X10.7	17.6X13.2	----

PMS-05HT110-C

Magnification:0.5X
Working distance:110mm

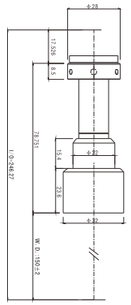


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
12.8X9.6	14.3X10.7	17.6X13.2	----

PMS-05HT110

Magnification:0.5X
Working distance:150mm

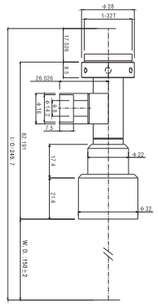


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
12.8X9.6	14.3X10.7	17.6X13.2	----

PMS-05HT150-C

Magnification:0.5X
Working distance:150mm

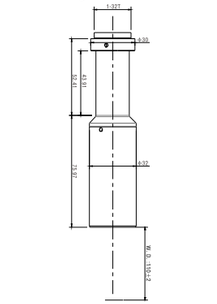


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
12.8X9.6	14.3X10.7	17.6X13.2	----

PMS-1.5HT110

Magnification:1.5X
Working distance:110mm

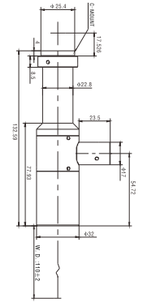


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
4.3X3.2	4.8X3.6	5.9X4.4	----

PMS-2HT110-C

Magnification:2.0X
Working distance:110mm

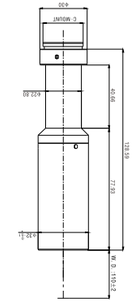


Unit:mm

F No. : 13.5			
Tv Distortion : 0.03%			
DOF : 0.27 mm			
N.A. : 0.0074			
Resolution (μm) : 4.53			
Max. Sensor Size : 2/3"			
Mount : C-Mount			
Lighting :Coaxial			
Working Temperature: -10°C~+50°C			
FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
3.2X2.4	3.6X2.7	4.4X3.3	----

PMS-2HT110

Magnification:2.0X
Working distance:110mm

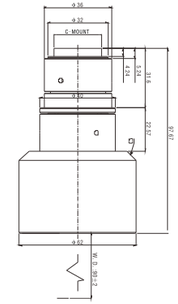


Unit:mm

F No.: 13.5			
Tv Distortion : 0.03%			
DOF : 0.27 mm			
N.A. : 0.0074			
Resolution (μm) : 4.53			
Max. Sensor Size : 2/3"			
Mount : C-Mount			
Lighting :Coaxial			
Working Temperature: -10°C~+50°C			
FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
3.2X2.4	3.6X2.7	4.4X3.3	----

PMS-023HT90

Magnification:0.23X
Working distance:90mm

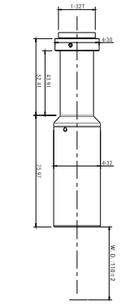


Unit:mm

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 :Coaxial			
Working Temperature: -10°C~+50°C			
FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
27.8X20.9	31.1X23.3	38.3X28.7	----

PMS-1.5HT110-C

Magnification:1.5X
Working distance:110mm

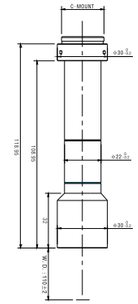


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
4.3X3.2	4.8X3.6	5.9X4.4	----

PMS-1.2HT110

Magnification:1.2X
Working distance:110mm

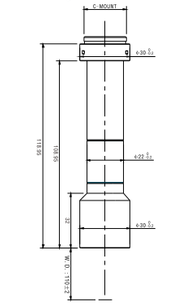


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
5.3X4.0	6.0X4.5	7.3X5.5	----

PMS-1.2HT110-C

Magnification:1.2X
Working distance:110mm

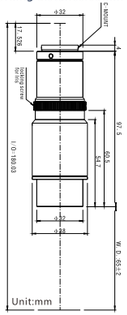


Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
5.3X4.0	6.0X4.5	7.3X5.5	----

PMS-2HT65-S

Magnification:2.0X
Working distance:65mm



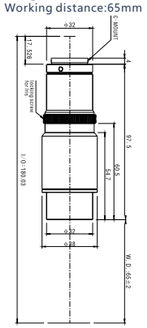
Unit:mm

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)			
1/2"	1/1.8"	2/3"	1"
3.2X2.4	----	----	----

PMS-2HT65-C-S

Magnification:2.0X
Working distance:65mm

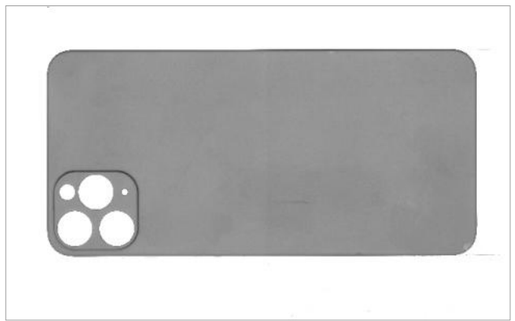


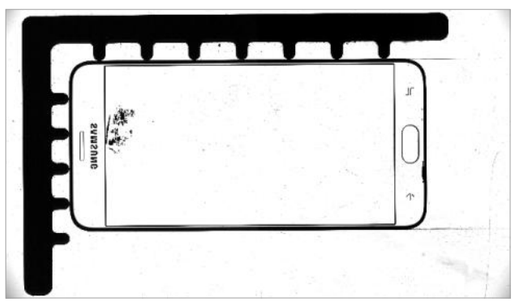
Unit:mm

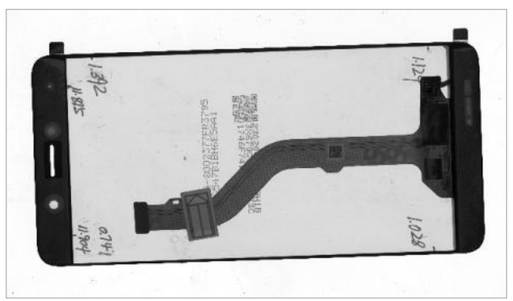
F No. : F6.6(Adjustable)
Tv Distortion : 0.05%
DOF : 0.13 mm(Adjustable)
N.A. : 0.152(Adjustable)
Resolution (μm) : 2.2(Adjustable)
Max. Sensor Size : 1/2"
Mount : C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV (MM) (HxV)			
1/2"	1/1.8"	2/3"	1"
3.2X2.4	----	----	----

ACTUAL IMAGE







Support 35mm
Full Frame Sensor, 29MP, F Mount

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

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	50IP/mm ＞70%	34.95	4/3"	＜0.02°	558	φ238	F Mount
PMS-017TF416	0.17X	120.6	168.8	241.2	211x141.2	416	8	0.01%	22.14	＞70%	31.56	35mm Film	＜0.02°	712.0	φ288	F Mount
PMS-0206TF468	0.206X	99.5	139.3	199.0	174.8x116.5	468	6.5	0.01%	12.24	＞70%	21.16	35mm Film	＜0.02°	632.2	φ238	F Mount
PMS-024TF398	0.24X	85.4	119.6	170.8	150.0x100.0	398	11	0.01%	15.28	＞70%	30.76	35mm Film	＜0.02°	586.7	φ203	F Mount
PMS-0316TF261	0.316X	64.9	90.8	129.7	113.9x75.9	261	8	0.02%	6.43	＞70%	17.03	35mm Film	＜0.02°	449.08	φ162	F Mount
PMS-050TF179	0.5X	41.0	57.4	82.0	72.0x48.0	179	13	0.01%	4.34	＞70%	18.18	35mm Film	＜0.02°	374.3	φ114	F Mount
PMS-100TF127	1.0X	20.0	28.0	40.0	36.0x24.0	127	16	0.01%	1.29	＞70%	10.82	35mm Film	＜0.02°	435.5	φ88.5	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	φ238	M58

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

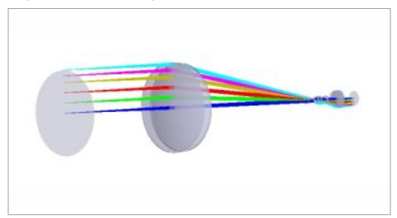
PRODUCT ADVANTAGES

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.

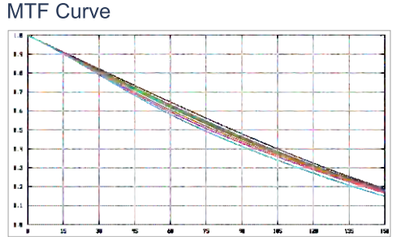
APPLICATION FIELDS

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..

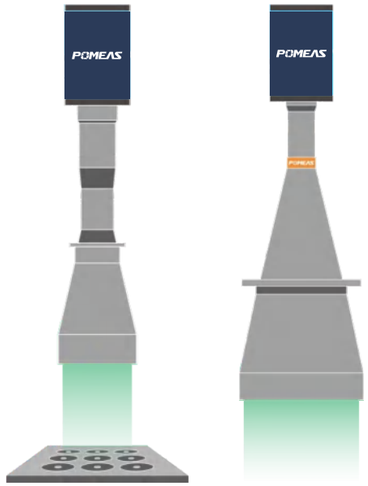
Light Path Design



MTF Curve



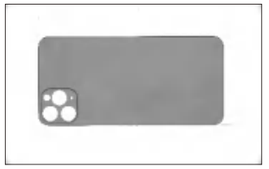
EXAMPLES OF APPLICATION



F Mount Telecentric Lens F Mount Lens

Success Cases

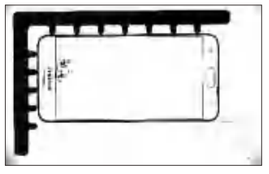
Mobile Phone Screen Ink Profile



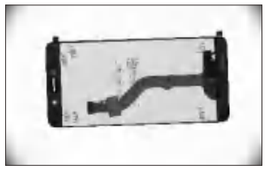
Cell Phone Glass Detection

Back Cover LOGO Character

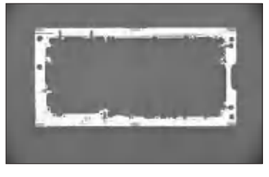
Multi-cover Silkscreen Inspection



Screen Printing Glass Inspection



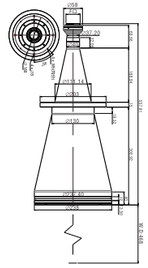
Combination Screen Margin Detection



Cell Phone Middle Frame Detection

PMS-0106TF468

Magnification:0.106X
Working distance:468mm

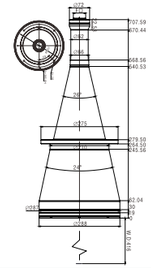


Unit:mm

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-017TF416

Magnification:0.17X
Working distance:416mm

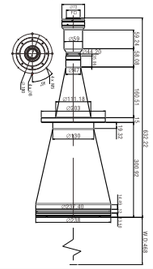


Unit:mm

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

Magnification:0.206X
Working distance:468mm

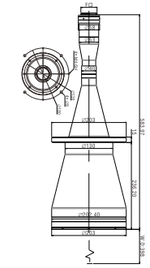


Unit:mm

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

Magnification:0.24X
Working distance:398mm

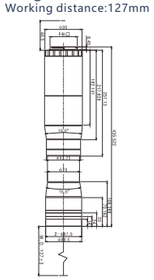


Unit:mm

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-1TF127

Magnification:1.0X
Working distance:127mm

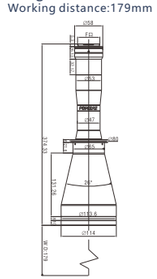


Unit:mm

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

Magnification:0.5X
Working distance:179mm

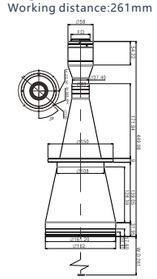


Unit:mm

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-0316TF261

Magnification:0.316X
Working distance:261mm

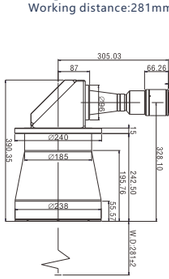


Unit:mm

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

PMS-018TF281-M58

Magnification:0.18X
Working distance:281mm



Unit:mm

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 : 390.35 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

Standard Telecentric Lens

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

Specification

Code	Magni-Fication	Field Of View(HxV)(mm)				W.D. (mm)	F.No.	TV Distortion	DOF (mm)	N.A.	Resolution (mm)	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.

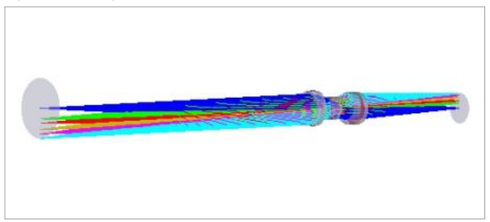
PRODUCT ADVANTAGES

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

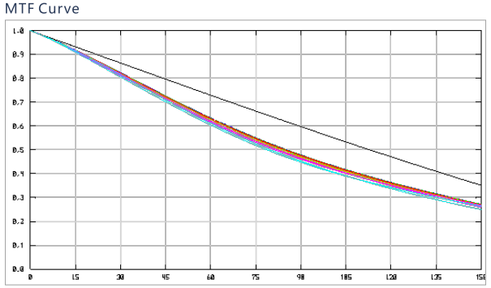
APPLICATION FIELDS

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

Light Path Design

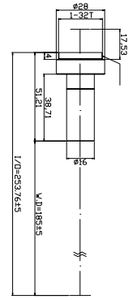


MTF Curve



PMS-03ML185

Magnification:0.3X
Working distance:185mm



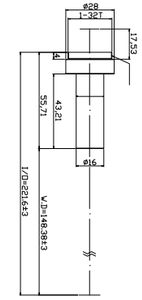
Unit:mm

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°C~+50°C

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

Magnification:0.4X
Working distance:150mm



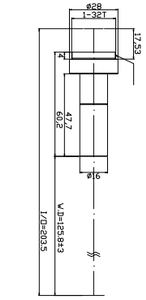
Unit:mm

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°C~+50°C

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

Magnification:0.5X
Working distance:130mm



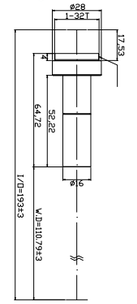
Unit:mm

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°C~+50°C

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

Magnification:0.6X
Working distance:110mm



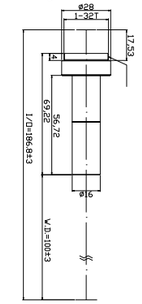
Unit:mm

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°C~+50°C

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-07ML110

Magnification:0.7X
Working distance:100mm



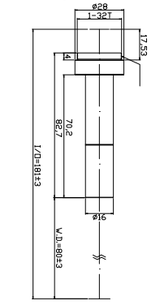
Unit:mm

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°C~+50°C

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

Magnification:1.0X
Working distance:80mm



Unit:mm

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°C~+50°C

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

Telecentric Lens With 55mm Focal Length

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

Specification

Code		PMS-TC55MC5M	Field Of View(HxV)(mm)	2/3"	21.4mmx17.1mmx12.8mm
Magnification		0.5X-inf.		1/2"	15.6mmx12.4mmx9.3mm
Resolution		3.45um@213"CCD		1/3"	11.3mmx9.3mmx7.0mm
Focal Length		55mm	Control	Focus	Manual
Iris Length		F2.8-C		Iris	Manual
Max.Sensor Size		2/3"	Distortion(at 0.5X)	2/3"	0.43%@y=5.5mm
Field Of View(DxHxV)	2/3"	11°x9.2°x6.9°		1/2"	0.26%@y=4.0mm
	1/2"	8.4°x6.7°x5.0°		1/3"	0.16%@y=3.0mm
	1/3"	6.3°x5.0°x3.8°	Optical Back Focal Length(in air)		13.3mm
Focus Range		0.13m-∞	Filter Thread		M43x0.75mm
Working Temperature		-10°C~+50°C	Illumination		——
Mount		C-Mount			

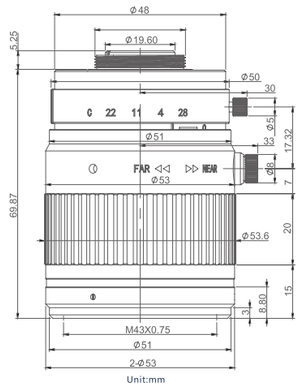
PRODUCT ADVANTAGES

1.Supports 5MP camera with 2/3" sensor;

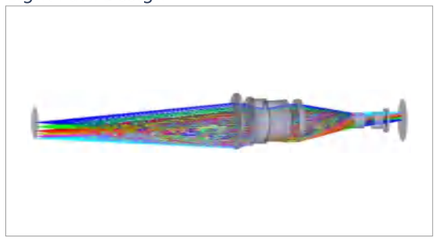
2.Manual iris, iris range is F2.8-C, max focal length is 55mm;

3.Deep depth of field, low distortion, high resolution;

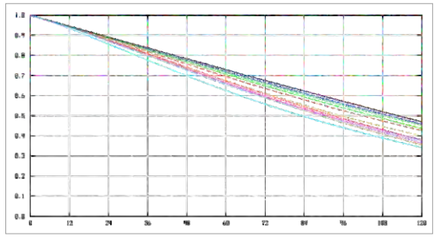
4.Telecentric optical design, suitable in machine vision industry and automation industry;



Light Path Design



MTF Curve



Bi-Telecentric Lens

Double magnification bi-telecentric design, supports two camera working at the same time, two magnificationsoutput to meet different measurement requirement, specially developed for measurement of large objects.

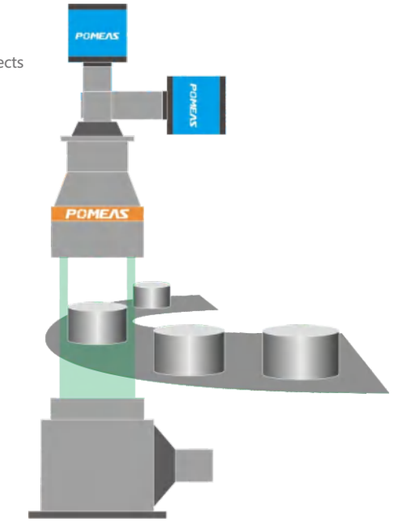
Code		PMS-LDTC-016/07-120		PMS-DTC-0088 /0176 -120	
Magnification		0.16X	0.7X	0.088X	0.176X
FOV (MM)(HxV)	1/3"	30.0x22.5	6.9x5.1	54.5x40.9	27.3x20.5
	1/2"	40.0x30.0	9.1x6.9	72.7x54.5	36.4x27.3
	1/1.8"	44.7x33.5	10.2x7.7	81.2x60.39	40.6x30.5
	2/3"	55.0x41.3	12.6x9.4	Φ100	50.0x37.5
Working Distance(mm)		120	120	120	120
N.A.		0.013	0.044	0.011	0.011
F.No.		6	8	4.46	8
TV Distortion		0.020%	0.020%	0.050%	0.050%
DOF(mm)		19.23	1.30	16	7.2
Centre Mtf@70ip/mm		>60%	>50%	>76%	>57%
Resolution(μm)		25.81	7.63	30.5	30.5
Max Sensor Size		1"	1"	1/1.8"	2/3"
Object Sidle Telecentricity		<0.02° (0.1°)	<0.02° (0.1°)	<0.02°	<0.02°
Lmage Side Telecentricity		<0.5°	<0.5°	<0.3°	——
Mount		C	C	C	C
Working Temperature		-10°C~+50°C	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C

PRODUCT ADVANTAGES

1.Double ports, bi-telecentric, almost without deviation whenused for measurement.

2.Big FOV and high resolution design, can achieve completeinspection at one time for large objects

3. Low distortion and deep DOF design.

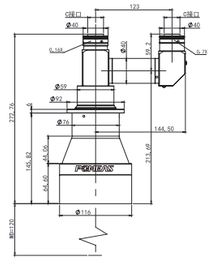


APPLICATION FIELDS

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

PMS-LDTC-016/07-120

Magnification:0.016/0.7X
Working distance:120mm



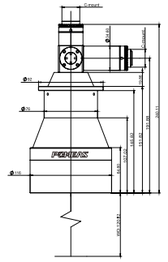
Unit:mm

F.No.:6/8
TV Distortion: 0.020%
DOF(mm):19.23mm/1.30mm
Centre Mtf@70ip/mm：＞60%/＞50%
Resolution(μm)：25.81μm/7.63μm
Max Sensor Size：1"
Object Sidle Telecentricity:＜0.02°
Lmage Side Telecentricity:＜0.02°
Mount:C-Mount
Working Temperature:-10°C~+50°C

FOV(MM)(HxV)	
1/3"	1/2"
30.0X22.5/6.9X5.1	40.0X30.0/9.1X6.9
1/1.8"	2/3"
44.7X33.5/10.2X7.7	55.0X41.3/12.6X9.4

PMS-DTC-0088 /0176 -120

Magnification:0.088/0.176X
Working distance:120mm

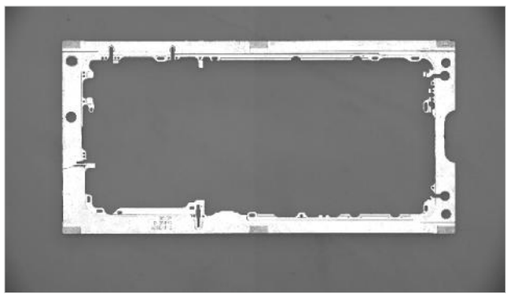


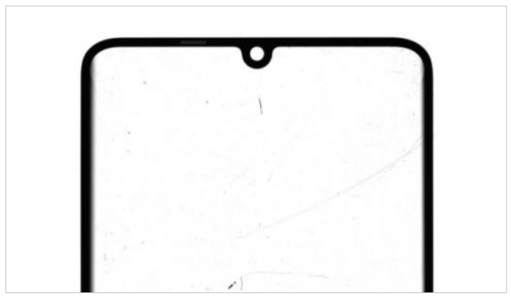
Unit:mm

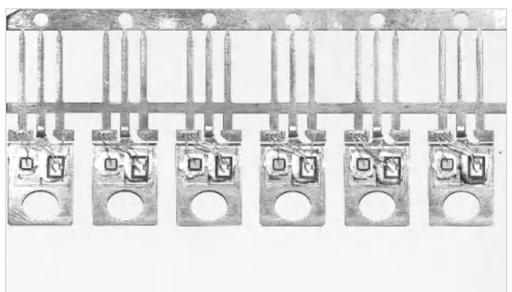
F.No.:4.46/8
TV Distortion: 0.050%
DOF(mm):16mm/7.2mm
Centre Mtf@70ip/mm：＞76%/＞57%
Resolution(μm)：30.5μm
Max Sensor Size：1/1.8"、2/3"
Object Sidle Telecentricity:＜0.02°
Lmage Side Telecentricity:＜0.3°
Mount:C-Mount
Working Temperature:-10°C~+50°C

FOV(MM)(HxV)	
1/3"	1/2"
54.5X40.9/27.3X20.5	72.7X54.5/36.4X27.3
1/1.8"	2/3"
81.2X60.39/40.6X30.5	φ100/50.0X37.5

ACTUAL IMGE







Standard Telecentric Lens

The Lenses from this series have certain magnificationand working distance.Tailored service isavailable,which makes this serieslens has super good costeffective.

Parameter T able Of Standard T elecentric L ens

Code	Magni-Fication	Field Of View(HxV)(mm)					W.D.(mm)	F.No.	TV Distortion	DOF(mm)	N.A.	Resolution(mm)	Max Sensor Size	Mount	Illumination	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	——	-10°C~+50°C
PMS-0.8ST90	0.8X	4.0x3.0	6.0x4.5	8.0x6.0	——	——	90.5	10.67	0.02%	1.33	——	8.947	1/2"	C	——	-10°C~+50°C
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	Coaxial	-10°C~+50°C
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	——	-10°C~+50°C
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	Coaxial	-10°C~+50°C
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	Coaxial	-10°C~+50°C
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	Coaxial	-10°C~+50°C
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	Coaxial	-10°C~+50°C
PMS-2ST40/ PMS-2ST40-C	2.0X	1.6x1.2	2.4x1.8	3.2x2.4	——	——	40.4	10	0.04%	0.2	0.025	3	1/2"	C	Coaxial	-10°C~+50°C
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	Coaxial	-10°C~+50°C
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	Coaxial	-10°C~+50°C

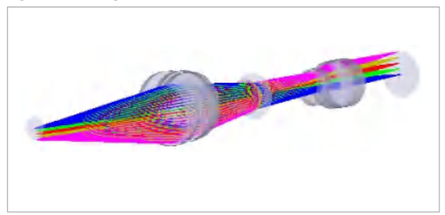
PRODUCT ADVANTAGES

1.This series telecentriclens adopts objective telecentric design, which have features of high DOF, high resolution and low distortior;
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;

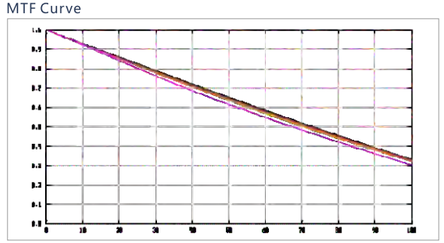
APPLICATION FIELDS

Positioninginspection of mobile screen and PCB printing industry.

Light Path Design

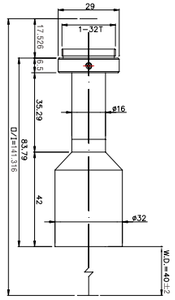


MTF Curve



PMS-0.5ST40

Magnification:0.5X
Working distance:40mm

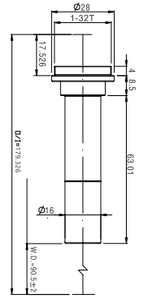


Unit:mm

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

Magnification:0.8X
Working distance:90.5mm

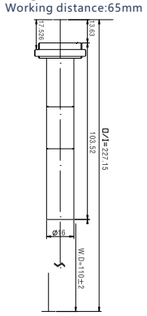


Unit:mm

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-1ST65

Magnification:1.0X
Working distance:65mm

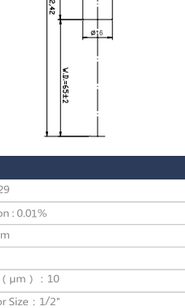


Unit:mm

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-0.5ST40 (duplicate)

Magnification:0.5X
Working distance:40mm

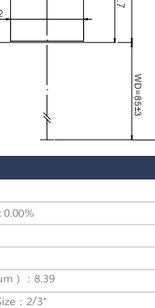


Unit:mm

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 (duplicate)

Magnification:0.8X
Working distance:90.5mm

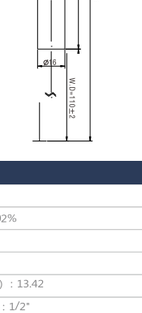


Unit:mm

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-1ST65 (duplicate)

Magnification:1.0X
Working distance:65mm

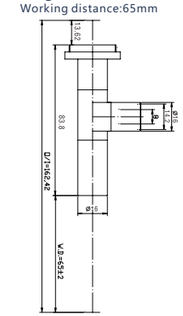


Unit:mm

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-1ST65-C

Magnification:1.0X
Working distance:65mm

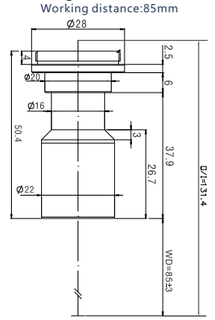


Unit:mm

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-1ST85

Magnification:1.0X
Working distance:85mm

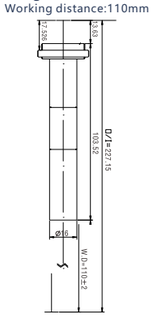


Unit:mm

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

Magnification:1.0X
Working distance:110mm

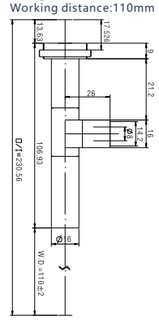


Unit:mm

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-1ST110-C

Magnification:1.0X
Working distance:110mm

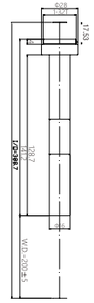


Unit:mm

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

Magnification:1.0X
Working distance:200mm

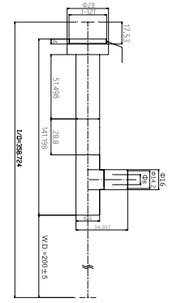


Unit:mm

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-1ST200-C

Magnification:1.0X
Working distance:200mm

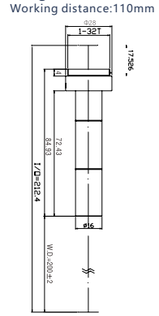


Unit:mm

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

Magnification:1.5X
Working distance:110mm

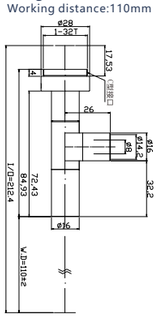


Unit:mm

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-1.5ST110-C

Magnification:1.5X
Working distance:110mm

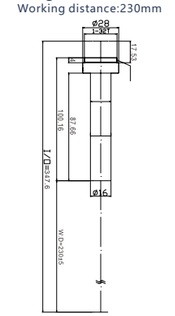


Unit:mm

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

Magnification:1.5X
Working distance:230mm

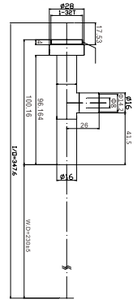


Unit:mm

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-1.5ST230-C

Magnification:1.5X
Working distance:230mm



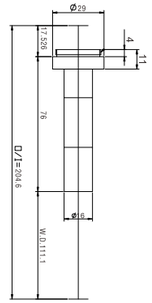
Unit:mm

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-2ST110

Magnification:2.0X
Working distance:110mm



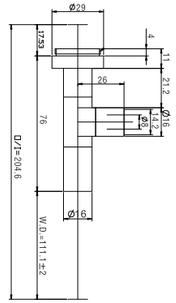
Unit:mm

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-2ST110-C

Magnification:2.0X
Working distance:110mm



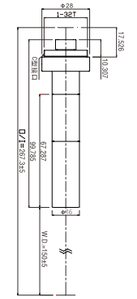
Unit:mm

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

Magnification:2.0X
Working distance:150mm



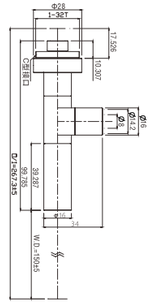
Unit:mm

F No. : 10
Tv Distortion : 0.03%
DOF : 0.8 mm
N.A. : 0.1
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-2ST150-C

Magnification:2.0X
Working distance:150mm

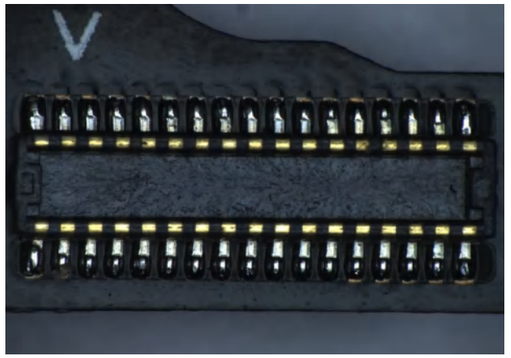


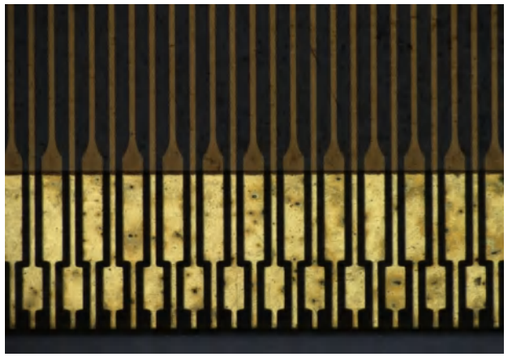
Unit:mm

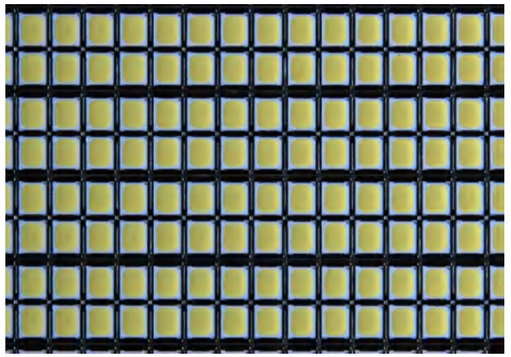
F No. : 10
Tv Distortion : 0.03%
DOF : 0.8 mm
N.A. : 0.1
Resolution (μm) : 13.42
Max. Sensor Size : 1/2"
Mount : C-Mount
Lighting : --/Coaxial
Working Temperature: -10°C~+50°C

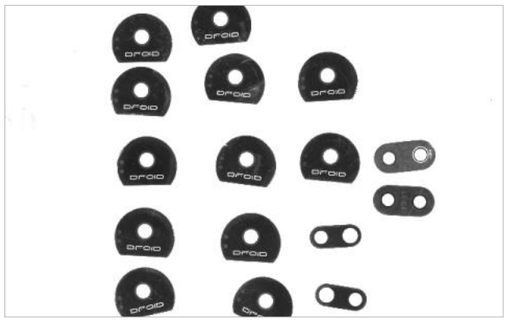
FOV (MM) (HxV)				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4	----	----

ACTUAL IMGE





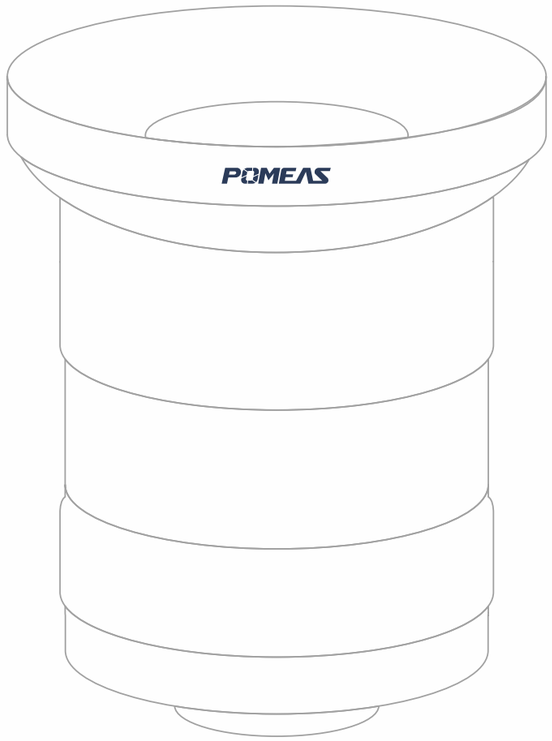




FA/MACHINE VISION LENS SERIES

To fully meet customers requirements, Pomeas develops full range FA lenses,including 1.5MP 2/3"series, 5MP 2/3"series, 5MP 1" series and 10MP 4/3"series20MP1.1"/4K/8K/16KSeries..
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.

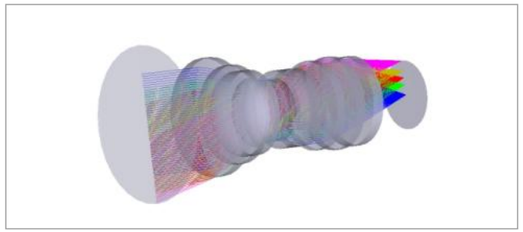
PRODUCT ADVANTAGES

1.Support MP/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.

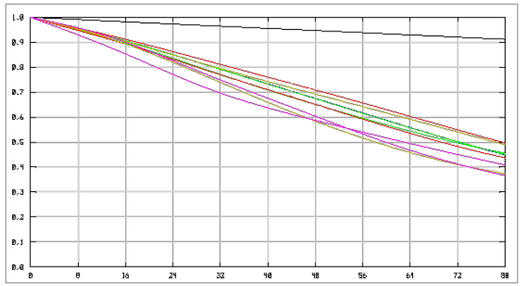
APPLICATION FIELDS

Application: widely used in machine vision, automatic production and electronic communication field.

Optical pathway diagram



MTF Curve



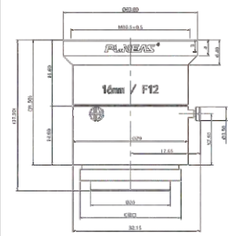
MC/LC Series Parameters

Code	Resolution	Max. Sensor Size	Image Size	Focal Length	Iris Range	Field Of View			Distortion	Focal Length	Mount	Filter Thread
						4/3"	1"	2/3"				
PMS-1612MC	1.0MP	2/3"	16.33mm	F12	0.30m~∞	——	——	30.4°x22.9°	-1.00%@y=5.5mm	12.67mm	C-Mount	M30.5x0.5mm
PMS-12MC	1.5MP	2/3" 8.8mmX6.6mm ϕ11mm	12.3mm	F1.4~C	0.15m~∞	——	——	40.0°x30.2°	-1.80%@y=5.5mm	12.70mm	C-Mount	M30.5x0.5mm
PMS-16MC			16.33mm	F1.4~C	0.30m~∞	——	——	30.4°x22.9°	-1.00%@y=5.5mm	12.67mm	C-Mount	M30.5x0.5mm
PMS-25MC			25mm	F1.4~C	0.25m~∞	——	——	19.9°x15.0°	-0.32%@y=5.5mm	13.60mm	C-Mount	M30.5x0.5mm
PMS-35MC			35mm	F1.4~C	0.30m~∞	——	——	13.8°x10.4°	-0.33%@y=5.5mm	14.7mm	C-Mount	M30.5x0.5mm
PMS-50MC			50mm	F1.8~C	0.50m~∞	——	——	9.2°x7.6°	-0.11%@y=5.5mm	12.94mm	C-Mount	M30.5x0.5mm
PMS-75MC			75mm	F2.8~C	1.10m~∞	——	——	6.7°x5.0°	0.34%@y=5.5mm	14.35mm	C-Mount	M30.5x0.5mm
PMS-1236MC			12~36mm	F2.8~C	0.15m~∞(wide) 0.5m~∞(tele)	——	——	41.4°x31.2°(wide) 13.8°x10.4°(tele)	3.5%@y=5.5mm(wide) 2.3%@y=5.5mm(tele)	12.6mm(wide) 15.2mm(tele)	C-Mount	M35.5x0.5mm
PMS-23MC	2.0MP	2/3"	22.5mm	F1.4-11	0.1m~∞	——	——	22.1°x16.7°	-0.44%@y=5.5mm	13.60mm	C-Mount	M30.5x0.5mm
PMS-08MC5M	5.0MP	2/3" 8.8mmX6.6mm ϕ11mm	8mm	F1.6~F22	0.1m~∞	——	——	55.8°x43.3°	-0.73%@y=5.5mm	12.44mm	C-Mount	M40.5x0.5mm
PMS-12MC5M			12mm	F1.6~F22	0.1m~∞	——	——	39.8°x30.4°	-0.53%@y=5.5mm	12.42mm	C-Mount	M37.5x0.5mm
PMS-16MC5M			16mm	F1.6~F22	0.2m~∞	——	——	30.8°x23.4°	0.07%@y=5.5mm	13.36mm	C-Mount	M37.5x0.5mm
PMS-25MC5M			25mm	F1.4~F22	0.2m~∞	——	——	20.0°x15.0°	-0.19%@y=5.5mm	12.78mm	C-Mount	M37.5x0.5mm
PMS-35MC5M			35mm	F1.4~F22	0.3m~∞	——	——	14.3°x10.8°	-0.07%@y=5.5mm	12.82mm	C-Mount	M37.5x0.5mm
PMS-50MC5M			50mm	F1.8~F22	0.4m~∞	——	——	10.1°x7.6°	0.03%@y=5.5mm	13.63mm	C-Mount	M37.5x0.5mm
PMS-75MC5M			75mm	F2.0~F22	0.9m~∞	——	——	6.7°x5.0°	0.04%@y=5.5mm	13.76mm	C-Mount	M40.5x0.5mm
PMS-1236MC5M			12~36mm	F2.8~F16	0.15m~∞(wide) 0.45m~∞(tele)	——	——	41.2°x31.2°(wide) 13.8°x10.4°(tele)	-3.4%@y=5.5mm(wide) 1.4%@y=5.5mm(tele)	18.93mm(wide) 18.87mm(tele)	C-Mount	M40.5x0.5mm
PMS-12LC5M	5.0MP	1" 12.8mmX9.6mm ϕ16mm	12mm	F1.6~F22	1m~∞	——	57.1°x44.1°	40.6°x30.9°	-2.88%@y=8.0mm	13.54mm	C-Mount	M52.0x0.75mm
PMS-16LC5M			16mm	F1.6~F22	1m~∞	——	44.2°x33.5°	30.8°x23.2°	-3.73%@y=8.0mm	12.17mm	C-Mount	M37.5x0.5mm
PMS-20LC5M			20mm	F1.6~F22	1m~∞	——	35.8°x27.2°	25.0°x18.8°	-1.82%@y=8.0mm	13.08mm	C-Mount	M37.5x0.5mm
PMS-25LC5M			25mm	F1.6~F22	——	——	29.0°x21.8°	20.0°x15.0°	-2.06%@y=8.0mm	12.69mm	C-Mount	M33.7x0.5mm
PMS-35LC5M			35mm	F1.4~F22	——	——	18.2°x14.1°	12.9°x9.6°	0.27%@y=8.0mm	12.83mm	C-Mount	M39.0x0.5mm
PMS-08MC10M	10.0MP	2/3"	8mm	F2.4~F22	0.25m~∞	——	——	56.6°x44.0°	-3.16%@y=5.5mm	10.30mm	C-Mount	M37.0x0.5mm
PMS-08MC10M(A)			8mm	F2.8-16	0.15m~∞	——	——	58.5°x45.5°	-0.81%@y=5.5mm	10.7mm	C-Mount	M32.7xP0.5mm
PMS-12MC10M(A)			12mm	F1.8~F22	0.1m~∞	——	——	40.9°x31.0°	-2.19%@y=5.5mm	15.10mm	C-Mount	M30.5x0.5mm
PMS-12MC10M(A)			12mm	F2.8-16	0.15m~∞	——	——	40.3°x30.8°	0.037%@y=5.5mm	8.43mm	C-Mount	M27xP0.5mm
PMS-16MC10M(A)			16mm	F2.8-16	0.15m~∞	——	——	30.7°x23.3°	0.29%@y=5.5mm	8.63mm	C-Mount	M27xP0.5mm
PMS-25MC10M(A)			25mm	F1.8~F22	0.15m~∞	——	——	20.1°x15.1°	-0.72%@y=5.5mm	12.70mmm	C-Mount	M30.5x0.5mm
PMS-25UC20M(A)			25mm	F2.8-16	0.15m~∞	——	——	19.94°x15.0°	-0.016%@y=5.5mm	10.31mm	C-Mount	M27xP0.5mm
PMS-35MC10M(A)			35mm	F2.0~F22	0.2m~∞	——	——	14.35°x10.8°	-0.16%@y=5.5mm	13.00mm	C-Mount	M30.5x0.5mm
PMS-35UC20M(A)			35mm	F2.8-16	0.2m~∞	——	——	14.8°x11.1°	-0.172%@y=5.5mm	13.63mm	C-Mount	M27xP0.5mm
PMS-50UC20M-H			50mm	F2.8-16	0.3m~∞	——	——	10.08°x7.57°	0.094%@y=5.5mm	14.24mm	C-Mount	M27xP0.5mm
PMS-12LC8M	12.0MP	4/3" 17.6mmX13.2mm ϕ22mm	12mm	F2.0~F22	——	75.5°x61.1°	57.3°x44.2°	——	-2.40%@y=11.0mm	18.93mm	C-Mount	M77.0x0.75mm
PMS-16LC8M			16mm	F2.0~F22	0.1m~∞	61.0°x47.2°	44.2°x33.6°	31.0°x23.4°	-2.81%@y=11.0mm	21mm	C-Mount	M58x0.75mm
PMS-25C8M			25mm	F2.0~F22	——	40.6°x31.0°	28.8°x21.8°	20.0°x15.1°	-0.66%@y=11.0mm	22.43mm	C-Mount	M46.0x0.75mm
PMS-35LC8M			35mm	F2.0~F22	——	29.6°x22.4°	20.8°x15.7°	14.4°x10.8°	-0.56%@y=11.0mm	18.65mm	C-Mount	M40.5x0.5mm
PMS-50LC8M			50mm	F2.0~F22	——	20.9°x15.7°	14.6°x11.0°	10.1°x7.6°	-0.14%@y=11.0mm	20.29mm	C-Mount	M40.5x0.5mm

PMS-1612MC

Focal Length:16.33mm

1.0MP Lens Series



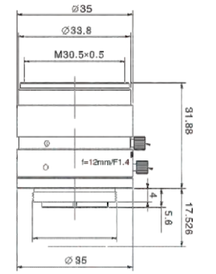
Unit: mm

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(DxHxV)		
2/3"		
30.4°X22.9°		

PMS-12MC

Focal Length:16mm

1.5MP Lens Series



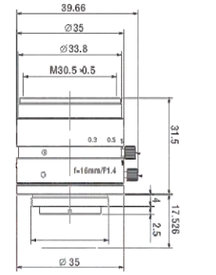
Unit: mm

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(DxHxV)		
4/3"	1"	2/3"
—	—	40°X30.2°

PMS-16MC

Focal Length:16mm

1.5MP Lens Series



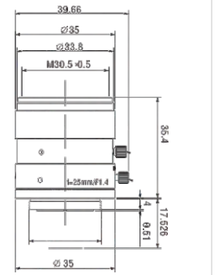
Unit: mm

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(DxHxV)		
4/3"	1"	2/3"
—	—	30.4°X22.9°

PMS-25MC

Focal Length:25mm

1.5MP Lens Series



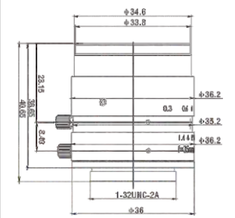
Unit: mm

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(DxHxV)		
4/3"	1"	2/3"
—	—	19.9°X15.0°

PMS-35MC

Focal Length:35mm

1.5MP Lens Series



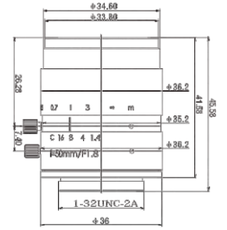
Unit: mm

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(DxHxV)		
4/3"	1"	2/3"
—	—	13.8°X110.4°

PMS-50MC

Focal Length:50mm

1.5MP Lens Series



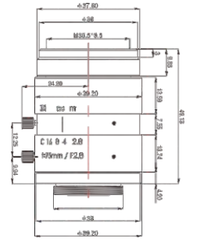
Unit: mm

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(DxHxV)		
4/3"	1"	2/3"
—	—	9.2°X7.6°

PMS-75MC

Focal Length:75mm

1.5MP Lens Series



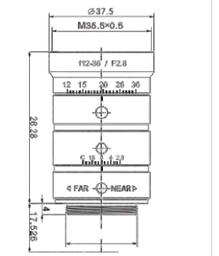
Unit: mm

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(DxHxV)		
4/3"	1"	2/3"
—	—	6.7°X5.0°

PMS-1236MC

Focal Length:75mm

1.5MP Lens Series



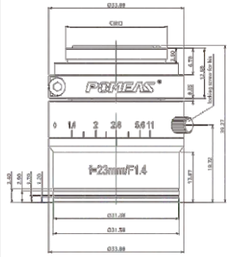
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 75 mm		
Iris Range : F2.8-C		
Focusing Range : 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(DxHxV)		
2/3"		
49.1°X40.2°X30.7(wide)	17.2°X13.9°X10.5°(tele)	

PMS-23MC

Focal Length:22.5mm

2.0MP Lens Series



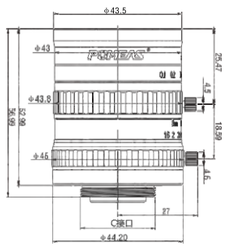
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 22.5 mm		
Iris Range : F1.4-11		
Focusing Range : 0.1m-∞		
Distortion : -0.44%@y = 5.5mm-∞		
Back Focal Length :13.6mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		
Field Of View(DxHxV)		
2/3"		
22.1°X16.7°		

PMS-08MC5M

Focal Length:8mm

5.0MP Lens Series



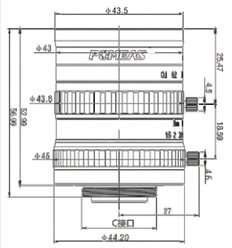
Unit: mm

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(DxHxV)		
2/3"		
55.8°X43.3°		

PMS-08MC5M

Focal Length:8mm

5.0MP Lens Series



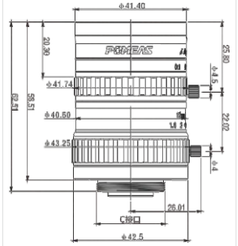
Unit: mm

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(DxHxV)		
2/3"		
55.8°X43.3°		

PMS-12MC5M

Focal Length:12mm

5.0MP Lens Series



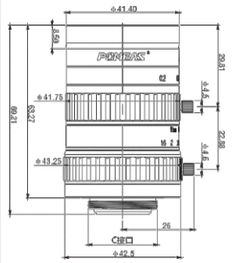
Unit: mm

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(DxHxV)		
2/3"		
39.8°X30.8°		

PMS-16MC5M

Focal Length:16mm

5.0MP Lens Series



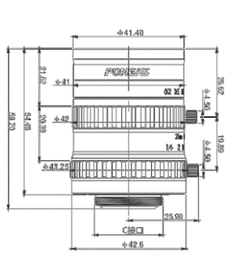
Unit: mm

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 : -0.07%@y = 5.5mm		
Back Focal Length :12.36mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		
Field Of View(DxHxV)		
2/3"		
30.8°X23.4°		

PMS-25MC5M

Focal Length:25mm

5.0MP Lens Series



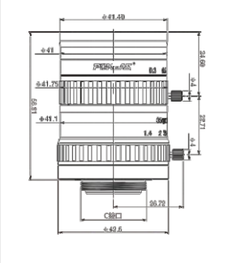
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 25mm		
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(DxHxV)		
2/3"		
20.0°X15.0°		

PMS-35MC5M

Focal Length:35mm

5.0MP Lens Series



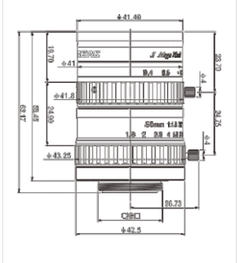
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 35mm		
Iris Range : F1.4-F22		
Focusing Range : 0.3m-∞		
Distortion : -0.19%@y = 5.5mm		
Back Focal Length :12.82mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		
Field Of View(DxHxV)		
2/3"		
14.3°X10.8°		

PMS-50MC5M

Focal Length:50mm

5.0MP Lens Series



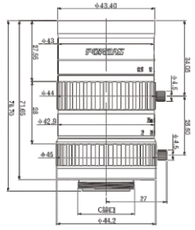
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 50mm		
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(DxHxV)		
2/3"		
10.1°X7.6°		

PMS-75MC5M

Focal Length:75mm

5.0MP Lens Series



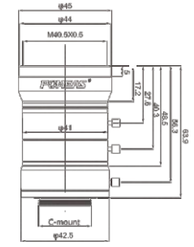
Unit: mm

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(DxHxV)		
2/3"		
6.7°X5.0°		

PMS-1236MC5M

Focal Length:12-36mm

5.0MP Lens Series



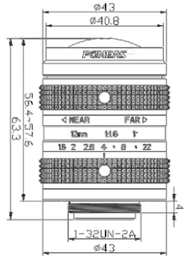
Unit: mm

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)		
0.15m-∞(tede)		
Distortion : -3.4%@y = 5.5mm(wide)		
1.4%@y = 5.5mm(tede)		
Back Focal Length :18.93mm(wide)		
18.87mm(tede)		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		
Field Of View(DxHxV)		
2/3"		
41.2°X31.2°(wide)	13.8°X10.4°(tede)	

PMS-12LC5M

Focal Length:12mm

5.0MP Lens Series



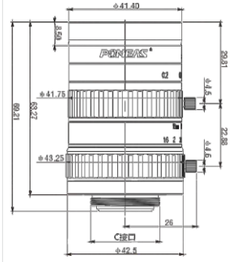
Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 12 mm		
Iris Range : F1.6- F22		
Focusing Range : 1m-∞		
Distortion : -0.04%@y = 8.0mm		
Back Focal Length :13.54mm		
Mount: C-Mount		
Filter Thread: M52.0X0.72mm		
Field Of View(DxHxV)		
1"	2/3"	
57.1°X44.1°	40.6°X30.9°	

PMS-16LC5M

Focal Length:16mm

5.0MP Lens Series



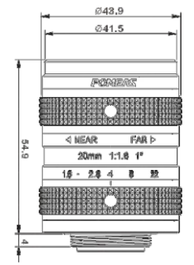
Unit: mm

Max.Sensor Size		
2/3"	12.8mm X 9.6mm	φ11mm
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(DxHxV)		
1"	2/3"	
44.2°X33.5°	30.8°X23.2°	

PMS-20LC5M

Focal Length:20mm

5.0MP Lens Series



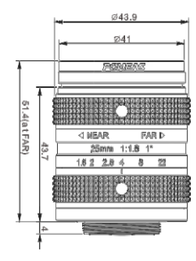
Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 20 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(DxHxV)		
1"	2/3"	
35.8°X27.2°	25.0°X18.8°	

PMS-25LC5M

Focal Length:25mm

5.0MP Lens Series



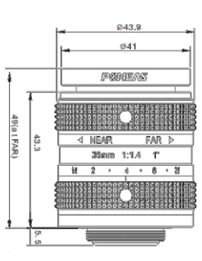
Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 25mm		
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(DxHxV)		
1"	2/3"	
29.0°X21.8°	20.0°X15.0°	

PMS-35LC5M

Focal Length:35mm

5.0MP Lens Series



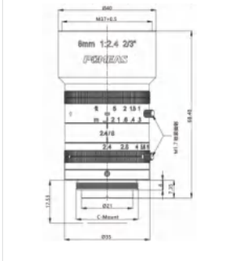
Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 35mm		
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(DxHxV)		
1"	2/3"	
18.2°X14.1°	12.9°X9.6°	

PMS-08MC10M

Focal Length:8mm

10MP Lens Series



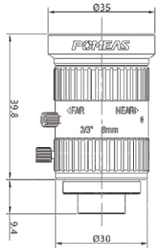
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 9.6mm	φ11mm
Focal Length (MM).: 8.0mm		
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: M37.0X0.5mm		
Field Of View(DxHxV)		
2/3"		
56.6°x44°		

PMS-08MC10M(A)

Focal Length:8mm

10MP Lens Series



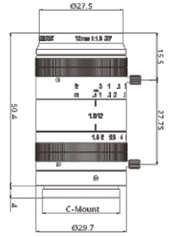
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 9.6mm	ϕ11mm
Focal Length (MM).: 8.0mm		
Iris Range : F2.8- 16		
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(DxHxV)		
2/3"		
58.5°x45.5°		

PMS-12MC10M(A)

Focal Length:12mm

10MP Lens Series



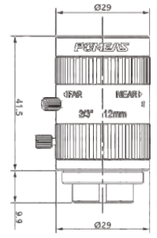
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 9.6mm	ϕ11mm
Focal Length (MM).: 12.0mm		
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(DxHxV)		
2/3"		
40.9°x31°		

PMS-12MC10M(B)

Focal Length:12mm

10MP Lens Series



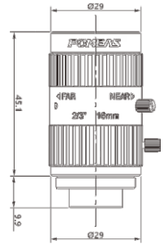
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 12.0mm		
Iris Range : F1.8- 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(DxHxV)		
2/3"		
40.3°x30.8°		

PMS-16MC10M(A)

Focal Length:16mm

10MP Lens Series



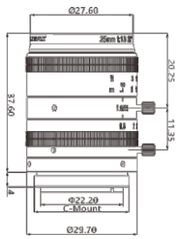
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 16.0mm		
Iris Range : F2.8- 16		
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(DxHxV)		
2/3"		
30.7°x23.3°		

PMS-25MC10M(A)

Focal Length:25mm

10MP Lens Series



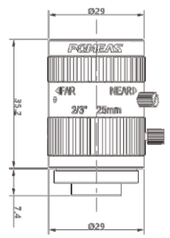
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 25.0mm		
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(DxHxV)		
2/3"		
20.1°x15.1°		

PMS-25UC20M(A)

Focal Length:25mm

10MP Lens Series



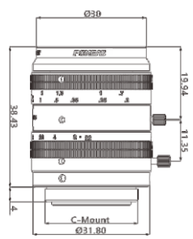
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 25.0mm		
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(DxHxV)		
2/3"		
19.94°x15.0°		

PMS-35UC20M(A)

Focal Length:35mm

10MP Lens Series



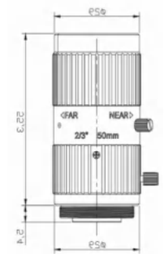
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 35.0mm		
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(DxHxV)		
2/3"		
14.35°x10.8°		

PMS-50UC20M-H

Focal Length:50mm

10MP Lens Series



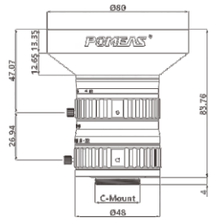
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	ϕ11mm
Focal Length (MM).: 50.0mm		
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(DxHxV)		
2/3"		
10.08°x7.57°		

PMS-12LC8M

Focal Length:12mm

10MP Lens Series



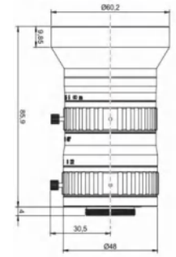
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	ϕ22mm
Focal Length (MM).: 12.0mm		
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(DxHxV)		
4/3"	1"	
75.5°x61.1°	57.3°x44.2°	

PMS-16LC8M

Focal Length:16mm

12MP Lens Series



Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	ϕ22mm
Focal Length (MM).: 16mm		
Iris Range : F2.0- F22		
Focusing Range : 0.1m-∞		
Distortion : -1.93%@y = 11.5mm		
Back Focal Length :21mm		
Mount: C-Mount		
Filter Thread: M58.0X0.75mm		
Field Of View(DxHxV)		
4/3"	1"	2/3"
61.0°x47.2°	44.2°x33.6°	31.0°x23.4°

PMS-25C8M

Focal Length:25mm

12MP Lens Series

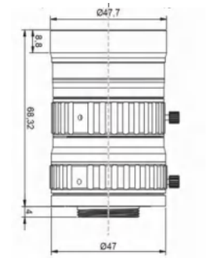
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	ϕ22mm
Focal Length (MM).: 25mm		
Iris Range : F2.0- F22		
Focusing Range : 0.15m-∞		
Distortion : -064%@y = 11.5mm		
Back Focal Length :22mm		
Mount: C-Mount		
Filter Thread: M46.0XP0.75mm		
Field Of View(DxHxV)		
4/3"	1"	2/3"
40.6°x31.0°	28.8°x21.8°	20.6°x15.1°

PMS-35LC8M

Focal Length:35mm

12MP Lens Series



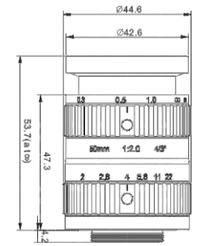
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	ϕ22mm
Focal Length (MM).: 35.0mm		
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(DxHxV)		
4/3"	1"	2/3"
29.6°x22.4°	20.8°x15.7°	14.4°x10.8°

PMS-50LC8M

Focal Length:50mm

12MP Lens Series



Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	ϕ22mm
Focal Length (MM).: 50.0mm		
Iris Range : F2.0- F22		
Focusing Range : 0.30m-∞		
Distortion : -0.14%@y = 11.0mm		
Back Focal Length :20.29mm		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		
Field Of View(DxHxV)		
4/3"	1"	2/3"
20.9°x15.7°	14.6°x11.0°	10.1°x7.6°

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	FilterThread
						4/3"	1"	2/3"				
PMS-12XC12M	12.0MP	4/3" (23mm)	12mm	F2.0~F22	0.15m~∞	75.6°x61.2°	57.36°x44.3°	-	-2.05%@y=11.5mm	18.8mm	C-Mount	M77.0xP0.75mm
PMS-16XC12M			16mm	F2.0~F22	0.1m~∞	61.0°x47.3°	44.3°x33.6°	-	-1.93%@y=11.5mm	21mm	C-Mount	M58.0xP0.75mm
PMS-25XC12M			25mm	F2.0~F22	0.15m~∞	40.6°x31.1°	28.9°x21.8°	-	-0.64%@y=11.5mm	22mm	C-Mount	M46.0xP0.75mm
PMS-35XC12M			35mm	F2.0~F22	0.2m~∞	29.7°x22.5°	20.8°x15.8°	-	-0.52%@y=11.5mm	18mm	C-Mount	M46.0xP0.75mm
PMS-50XC12M			50mm	F2.0~F22	0.3m~∞	21.0°x15.8°	14.7°x11.1°	-	-0.13%@y=11.5mm	20mm	C-Mount	M46.0xP0.75mm

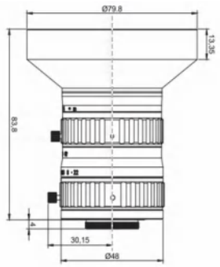
JC Series Machine Vision Lens Parameter

Code	Resolution	Max. Sensor Size	Focal Length	Iris Range	Focusing Range	Field Of view (HxV)			Distortion	Back Focal Length	Mount	FilterThread
						1/1.8"	2/3"	1/2"				
PMS-45JC10M	10.0MP	1/1.8"	4.5mm	F2.8~16	0.1m~∞	89.0°x81.9°x52.3°	—	89.0°x81.9°x52.3°	-1.2%@y=4.5mm 1.08%@y=4.0mm	8.4mm	C-Mount	—

PMS-12XC12M

Focal Length:12mm

12MP Lens Series



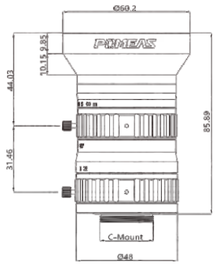
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 12.0mm		
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(DxHxV)		
4/3"	1"	
75.6°x61.2°	57.36°x44.3°	

PMS-16XC12M

Focal Length:16mm

12MP Lens Series



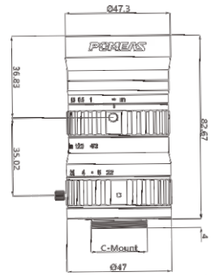
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 16.0mm		
Iris Range : F2.0- F22		
Focusing Range : 0.1m-∞		
Distortion : -2.81%@y = 11.0mm		
Back Focal Length :21mm		
Mount: C-Mount		
Filter Thread: M58XP0.75mm		
Field Of View(DxHxV)		
4/3"	1"	2/3"
61.0°x47.2°	44.2°x33.6°	31.0°x23.4°

PMS-25XC12M

Focal Length:25mm

12MP Lens Series



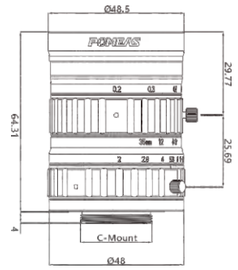
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 25.0mm		
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(DxHxV)		
4/3"	1"	2/3"
40.6°x31.0°	28.8.°x21.8°	20.0°x15.1°

PMS-35XC12M

Focal Length:35mm

12MP Lens Series



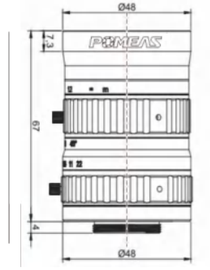
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 35.0mm		
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(DxHxV)		
4/3"	1"	2/3"
29.6°x22.4°	20.8.°x15.7°	14.7°x11.1°

PMS-50XC12M

Focal Length:50mm

12MP Lens Series



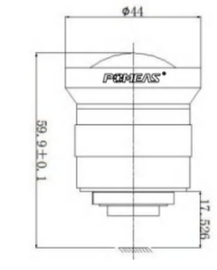
Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 50.0mm		
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(DxHxV)		
4/3"	1"	
21.0°x15.8°	14.7.°x11.1°	

PMS-45JC10M

Focal Length:4.5mm

10MP Lens Series



Unit: mm

Max.Sensor Size	
1/1.8"	φ9mm
Focal Length (MM).: 4.5mm	
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(DxHxV)	
1/1.8"	1/2"
89.0°x81.9°x52.3°	89.0°x81.9°x52.3°

Low Distortion Machine Vision Lens

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

Product Parameter Table

Code	Max. Sensor Size	Image Size	Focal Length	Iris Range	Resolution	Distortion Rate	Optical Back Focus	Mechanical Back Focus	Focusing range	Field Of View	Object Size	Operating Method	Mount
PMS-12VC20M-C	1.1"	17.6mm	12mm	F2.8~F16	2000万	-1.05%	14.45mm	10.63mm	0.1m~∞	66.9°x56°x43.3°	230mmX184mmX137mm	manually operated	C
PMS-12VC20M			12mm	F2.8~F22		-0.85%	10.6mm	——	0.1m~∞	70.6°x59.2°x45.4°	166.4mmX133.1mmX99.8mm		
PMS-16VC20M-C			16mm	F2.8~F16		-1%	9.67mm	9.5mm	0.15m~∞	56.3°x47.7°x33.7°	181mmX148.9mmX101.7mm		
PMS-16VC20M			16mm	F2.8		-0.73%	11.2mm	——	——	58.6°x46.8°x35.2°	——		
PMS-25VC20M-C			5mm	F2.8~F16		-0.50%	12.7mm	11.3mm	0.1m~∞	32.7°x26.4°x19.9°	94.4mmX75.4mmX56.5mm		
PMS-25VC20M			25mm	F2.8		-0.59%	12.6mm	——	——	39.4°x31.5°x23.6°	——		
PMS-35VC20M			35mm	F2.8~F16		-0.30%	10.52mm	8.9mm	0.2m~∞	23.33°x19.33°x13.32°	90.8mmX74.81mmX51.18mm		
PMS-35VC20M-C			35mm	F2.8		-0.37%	12.9mm	——	——	28.2°x22.5°x16.9°	——		
PMS-50VC20M-C			50mm	F2.8~F16		-0.05%	10.3mm	10.08mm	0.25m~∞	18.6°x15°x11.2°	69mmX55mmX41mm		
PMS-50VC20M			50mm	F2.8		-0.06%	21.3mm	——	——	19.9°x15.9°x11.9°	——		

PRODUCT ADVANTAGES

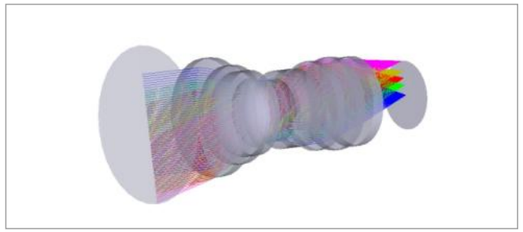
1.Support MP/5MP/20MP 1.1" camera.

2.Focus and iris locking screw to ensure stable focusing.

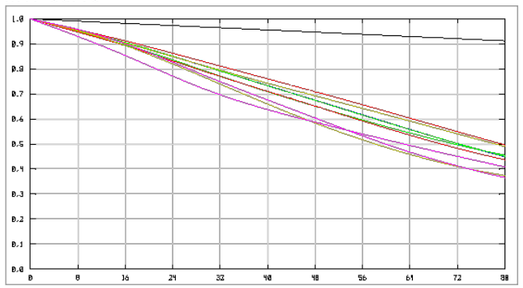
3.Low distortion, sharp image.

4.Compact structure, excellent optical performance.

Optical pathway diagram



MTF Curve



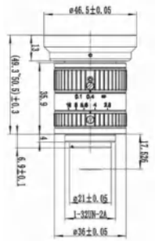
APPLICATION FIELDS

Application: widely used in machine vision, automatic production and electronic communication field.

PMS-12VC20M-C

Focal Length:12mm

20.0MP Lens Series



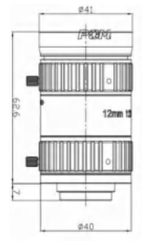
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	12mm
Iris Range	F2.8-F16
Resolution	20MP
Distortion Rate	-1.05%
Optical Back Focus	14.45mm
Mechanical Back Focus	10.63mm
Focusing Range	0.1m-∞
Operating Method	manually operated
Mount	C
Field of View(DxHxV)	
66.9° X56° X43.3°	
Object Size(DxHxV)	
230mmX184mmX137mm	

PMS-12VC20M

Focal Length:12mm

20.0MP Lens Series



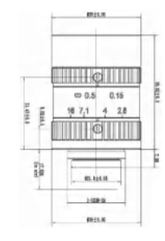
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	12mm
Iris Range	F2.8-F22
Resolution	20MP
Distortion Rate	-0.85%
Optical Back Focus	10.6mm
Mechanical Back Focus	\
Focusing Range	0.1m-∞
Operating Method	manually operated
Mount	C
Field of View(DxHxV)	
70.6° X59.2° X45.4°	
Object Size(DxHxV)	
166.4mmX133.1mmX99.8mm	

PMS-16VC20M-C

Focal Length:16mm

20.0MP Lens Series



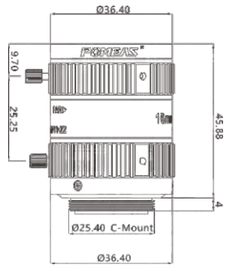
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	16mm
Iris Range	F2.8-F16
Resolution	20MP
Distortion Rate	-1%
Optical Back Focus	9.67mm
Mechanical Back Focus	9.5mm
Focusing Range	0.15m-∞
Operating Method	manually operated
Mount	C
Field of View(DxHxV)	
56.3° X47.7° X33.7°	
Object Size(DxHxV)	
181mmX148.9mmX101.7mm	

PMS-16VC20M

Focal Length:16mm

20.0MP Lens Series



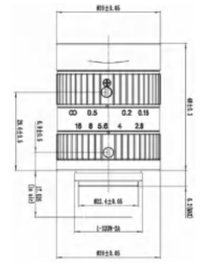
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	16mm
Iris Range	F2.8
Distortion Rate	-0.73%
Optical Back Focus	11.20mm
Mechanical Back Focus	\
Focusing Range	\
Mount	C
Field of View(DxHxV)	
58.6° X46.8° X35.2°	
Object Size(DxHxV)	
M34×0.5mm	

PMS-25VC20M

Focal Length:25mm

20.0MP Lens Series



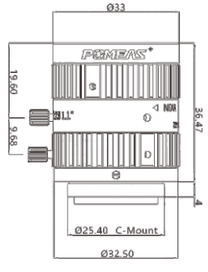
Unit: mm

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

PMS-25VC20M-C

Focal Length:25mm

20.0MP Lens Series



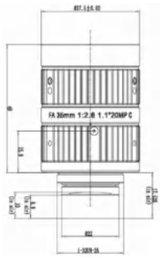
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	25mm
Iris Range	F2.8
Distortion Rate	-0.59%
Optical Back Focus	12.6mm
Mechanical Back Focus	\
Focusing Range	\
Mount	C
Field of View(DxHxV)	
39.4° X31.5° X23.6°	
Object Size(DxHxV)	
M30.5×0.5mm	

PMS-35VC20M

Focal Length:35mm

20.0MP Lens Series



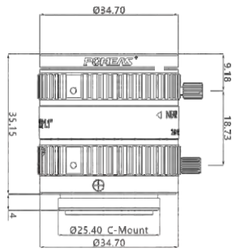
Unit: mm

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

PMS-35VC20M-C

Focal Length:35mm

20.0MP Lens Series



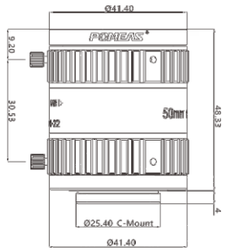
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	35mm
Iris Range	F2.8
Distortion Rate	-0.37%
Optical Back Focus	12.9mm
Mechanical Back Focus	\
Focusing Range	\
Mount	C
Field of View(DxHxV)	
28.2° X22.5° X16.9°	
Object Size(DxHxV)	
M30.5×0.5mm	

PMS-50VC20M-C

Focal Length:50mm

20.0MP Lens Series



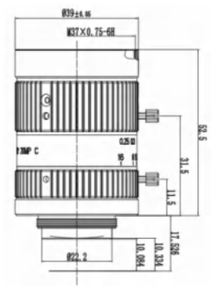
Unit: mm

Max. Sensor Size	1.1"
Image Size	17.6mm
Focal Length	50mm
Iris Range	F2.8
Distortion Rate	-0.06%
Optical Back Focus	21.3mm
Mechanical Back Focus	\
Focusing Range	\
Mount	C
Field of View(DxHxV)	
19.9° X15.9° X11.9°	
Object Size(DxHxV)	
M37×0.5mm	

PMS-50VC20M

Focal Length:50mm

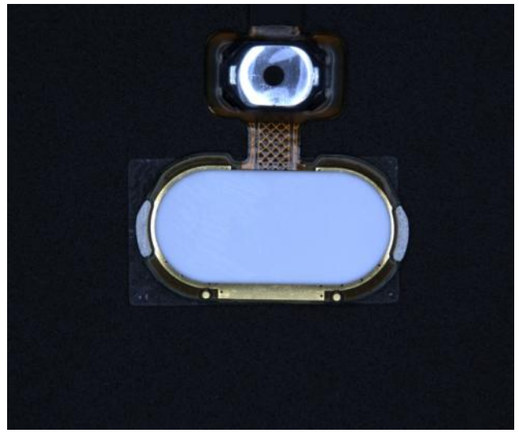
20.0MP Lens Series

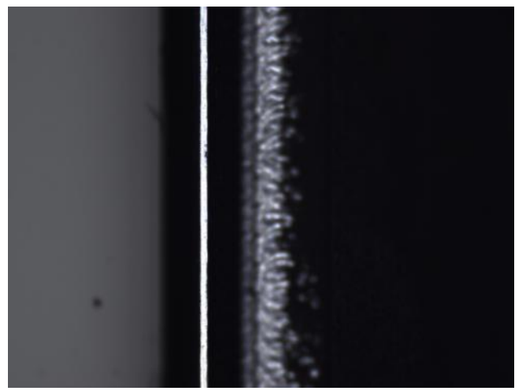


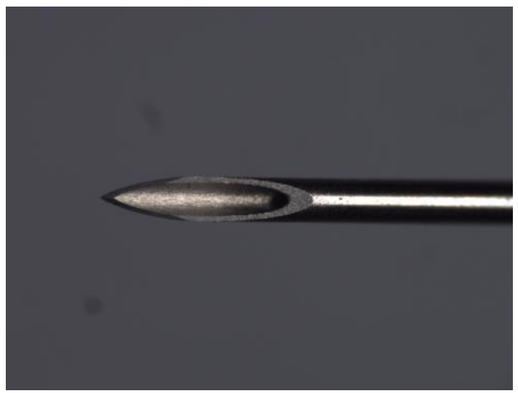
Unit: mm

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

PRODUCT CASES







Line Scan Industrial Lens

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

4K Line Scan Series Product Parameter Table

Code	Max. Sensor Size	Image Size	Base Multiplier	Iris Range	Focal Length (mm)	Distortion	Relative Illumination	Working distance (mm)	Conjugate distance (mm)	Mount
PMS-LLA003-2540M	Φ32	7um	0.015X	4.0~16	25	<0.1%	65%	1740	1826.4	M42/M72
			0.03X					870	952	
			0.05X					520	607.3	
PMS-LLA015-2540M			0.125X	4.0~16	25	<0.15%	65%	187	279.2	M42/M72/F□
			0.15X					158	246	
			0.175X					130	223.3	
PMS-LLA05-3528M			0.3X	2.8~16	35	<0.03%	65%	123	202	M42/M72/F□
			0.5X					84	169	
			0.7X					63	155	
PMS-LLA02-3528M			0.15X	2.8~16	35	<0.05%	65%	245	318	M42/M72/F□
			0.2X					190	264	
			0.25X					152	229	
PMS-LLA01-3528M			0.05X	2.8~16	35	<0.1%	65%	700	769	M42/M72/F□
			0.1X					350	421	
			0.15X					240	312	

PRODUCT ADVANTAGES

- Multiple specification options 4K/8K/16K three specifications can be selected;
- Ultra-low distortion;
- Shockproof design;
- Support 4K/8K/16K line scan camera.

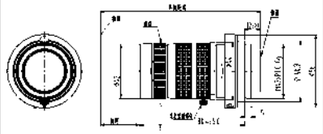
APPLICATION FIELDS

Widely used in machine vision production automation and other fields.

PMS-LLA003-2540M

Focal Length:25mm

4K Lens Series



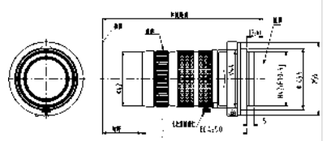
Unit: mm

Max.Sensor Size(mm)	Φ32		
Image Size	7um		
Base Multiplier	0.015X	0.03X	0.05X
Iris Range	4.0~16		
Focal Length (mm)	25		
Distortion	<0.1%		
Relative Illumination	65%		
Working distance(mm)	1740	870	520
Conjugate distance (mm)	1826.4	952	607.3
Mount	M42/M72		

PMS-LLA015-2540M

Focal Length:25mm

4K Lens Series



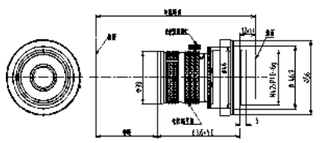
Unit: mm

Max.Sensor Size(mm)	Φ32		
Image Size	7um		
Base Multiplier	0.125X	0.15X	0. 175X
Iris Range	4.0~16		
Focal Length (mm)	25		
Distortion	<0.15%		
Relative Illumination	65%		
Working distance(mm)	187	158	130
Conjugate distance (mm)	279. 2	246	223. 3
Mount	M42/M72/F		

PMS-LLA05-3528M

Focal Length:35mm

4K Lens Series



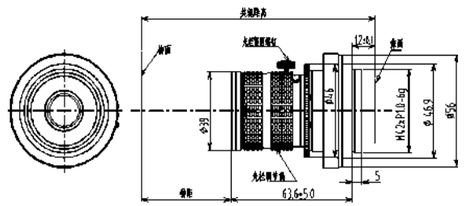
Unit: mm

Max.Sensor Size(mm)	Φ32		
Image Size	7um		
Base Multiplier	0.3X	0.5X	0. 7X
Iris Range	2.8~16		
Focal Length (mm)	35		
Distortion	<0.03%		
Relative Illumination	65%		
Working distance(mm)	123	84	63
Conjugate distance (mm)	202	169	155
Mount	M42/M72/F		

PMS-LLA02-3528M

Focal Length:35mm

4K Lens Series



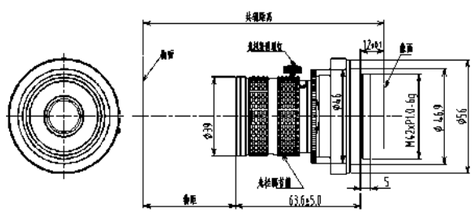
Unit: mm

Max.Sensor Size(mm)	Φ32		
Image Size	7um		
Base Multiplier	0.15X	0.2X	0.25X
Iris Range	2.8~16		
Focal Length (mm)	35		
Distortion	<0.05%		
Relative Illumination	65%		
Working distance(mm)	245	190	152
Conjugate distance (mm)	318	264	229
Mount	M42/M72/F		

PMS-LLA01-3528M

Focal Length:35mm

4K Lens Series



Unit: mm

Max.Sensor Size(mm)	Φ32		
Image Size	7um		
Base Multiplier	0.05X	0.1X	0. 15X
Iris Range	2.8~16		
Focal Length (mm)	35		
Distortion	<0.1%		
Relative Illumination	65%		
Working distance(mm)	700	350	240
Conjugate distance (mm)	769	421	312
Mount	M42/M72/F		

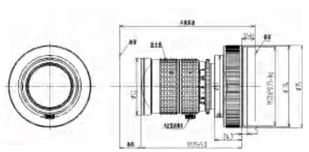
8K Line Scan Series Product Parameter Table

Code	Max. Sensor Size	Image Size	Base Multiplier	Iris Range	Focal Length (mm)	Distortion	Relative Illumination	Working distance (mm)	Conjugate distance (mm)	Mount
PMS-LLB005-5040M	ϕ62	5um/7um	0.025X	4.0~22	50	<0.05%	60%	2000	2102	M42/M58/M72/F
			0.05X					1025	1133	
			0.07X					735	839.2	
PMS-LLB01-5040M		5um/7um	0.07X		50	<0.05%	60%	735	839.2	M42/M58/M72/F
			0.1X					515	626	
			0.13X					405	512.4	
PMS-LLB02-5040M		5um/7um	0.15X		50	<0.05%	60%	350	458.6	M42/M58/M72/F
			0.2X					265	381	
			0.25X					220	333.4	
PMS-LLB01-6040M	ϕ64	7um	0.03X		60	<0.05%	60%	2050	2182	M42/M58/M72/F
			0.1X					635	723	
			0.18X					370	462	
PMS-LLB025-8040M		5um/7um	0.2X	4.0~16	80	<0.02%	80%	470	614	M72/F
			0.25X					385	533	
			0.35X					295	451	
PMS-LLB05-8040M		5um/7um	0.35X		80	<0.05%	85%	293	446	M72/F
			0.5X					225	391	
			0.63X					192	368	
PMS-LLB075-8040M		5um/7um	0.63X		80	<0.05%	90%	190	365	M72/F
			0.75X					170	354	
			0.9X					153	349	

PMS-LLB005-5040M

Focal Length:50mm

8K Lens Series



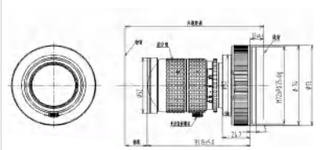
Unit: mm

Max.Sensor Size(mm)	ϕ62		
Image Size	5um/7um		
Base Multiplier	0.025X	0.05X	0.07X
Iris Range	4.0~22		
Focal Length (mm)	50		
Distortion	<0.05%		
Relative Illumination	60%		
Working distance(mm)	2000	1025	735
Conjugate distance (mm)	2102	1133	839.2
Mount	M42/M58/M72/F		

PMS-LLB01-5040M

Focal Length:50mm

8K Lens Series



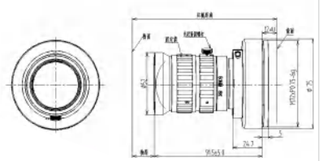
Unit: mm

Max.Sensor Size(mm)	ϕ62		
Image Size	5um/7um		
Base Multiplier	0.07X	0.1X	0.13X
Iris Range	4.0~22		
Focal Length (mm)	50		
Distortion	<0.05%		
Relative Illumination	60%		
Working distance(mm)	735	515	405
Conjugate distance (mm)	839.2	626	512.4
Mount	M42/M58/M72/F		

PMS-LLB02-5040M

Focal Length:50mm

8K Lens Series



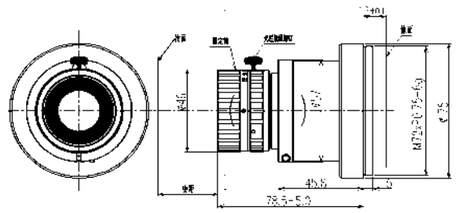
Unit: mm

Max.Sensor Size(mm)	ϕ62		
Image Size	5um/7um		
Base Multiplier	0.15X	0.2X	0.25X
Iris Range	4.0~22		
Focal Length (mm)	50		
Distortion	<0.05%		
Relative Illumination	60%		
Working distance(mm)	350	265	220
Conjugate distance (mm)	458.6	381	33.4
Mount	M42/M58/M72/F		

PMS-LLB01-6040M

Focal Length:60mm

8K Lens Series



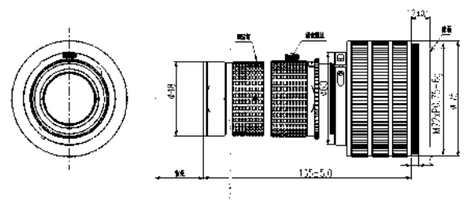
Unit: mm

Max.Sensor Size(mm)	ϕ64		
Image Size	7um		
Base Multiplier	0.03X	0.1X	0.18X
Iris Range	4.0~22		
Focal Length (mm)	60		
Distortion	<0.05%		
Relative Illumination	60%		
Working distance(mm)	2050	635	370
Conjugate distance (mm)	2182	723	462
Mount	M42/M58/M72/F		

PMS-LLB025-8040M

Focal Length:80mm

8K Lens Series



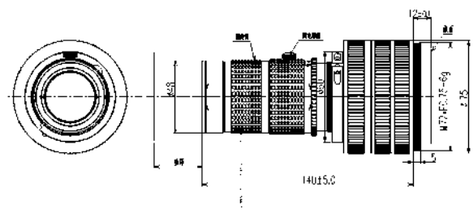
Unit: mm

Max.Sensor Size(mm)	ϕ64		
Image Size	5um/7um		
Base Multiplier	0.2X	0.25X	0.35X
Iris Range	4.0~16		
Focal Length (mm)	80		
Distortion	<0.02%		
Relative Illumination	80%		
Working distance(mm)	470	385	295
Conjugate distance (mm)	614	533	451
Mount	M72/F		

PMS-LLB075-8040M

Focal Length:80mm

8K Lens Series



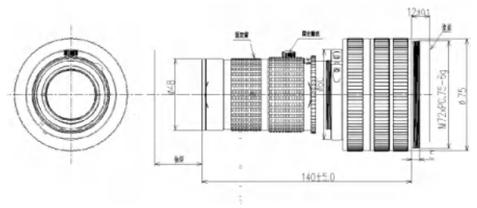
Unit: mm

Max.Sensor Size(mm)	ϕ64		
Image Size	5um/7um		
Base Multiplier	0.63X	0.75X	0.9X
Iris Range	4.0~16		
Focal Length (mm)	80		
Distortion	<0.05%		
Relative Illumination	90%		
Working distance(mm)	190	170	153
Conjugate distance (mm)	365	354	349
Mount	M72/F		

PMS-LLB05-8040M

Focal Length:80mm

8K Lens Series



Unit: mm

Max.Sensor Size(mm)	ϕ64		
Image Size	5um/7um		
Base Multiplier	0.35X	0.5X	0.63X
Iris Range	4.0~16		
Focal Length (mm)	80		
Distortion	<0.05%		
Relative Illumination	85%		
Working distance(mm)	293	225	192
Conjugate distance (mm)	446	391	368
Mount	M72/F		

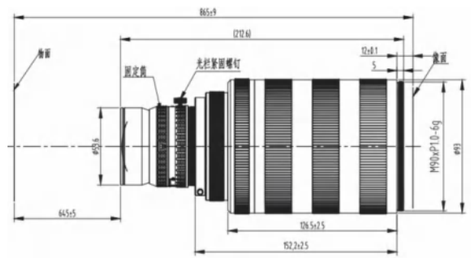
16K Line Scan Series Product Parameter Table

Code	Max. Sensor Size	Image Size	Base Multiplier	Iris Range	Focal Length (mm)	Distortion	Relative Illumination	Working distance (mm)	Conjugate distance (mm)	Mount
PMS-LLC026-14640M-M72	ϕ82	5	0.22X	4.0~16	146	<0.002%	90%	752	968	M72
			0.26X					644	865	
			0.3X					571	799	
PMS-LLC033-14640M-M72		5	0.3X			<0.002%		571	799	
			0.33X					533	764	
			0.37X					482	720	
PMS-LLC05-14640M-M72		5	0.46X			<0.002%		417	659	
			0.5X					383	632	
			0.54X					357	613	
PMS-LLC075-14640M-M72		5	0.7X			<0.002%		304	581	
			0.75X					286	574	
			0.85X					267	443	
PMS-LLC1-14640M-M72		5	0.92X			<0.001%		198	443	
			1X					188	442	
			1.08X					197	442	
PMS-LLC133-14640M-M72		5	1.2X			<0.001%		216	567	
			1.33X					204	574	
			1.5X					192	586	
PMS-LLC2-14640M-M72		5	1.75X			<0.001%		179	606	
			2.0X					632	632	
			2.25X					690	690	
PMS-LLC3-14640M-M72		10	2.7X			<0.002%		157	717	
			3.0X					150	764	
			3.5X					144	826	

PMS-LLC026-14640M-M72

Focal Length:146mm

16K Lens Series

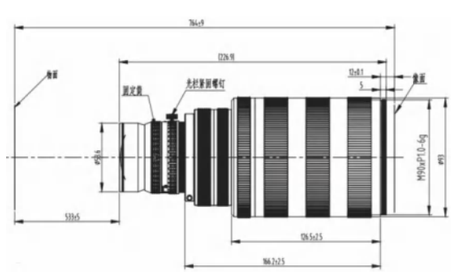


Max.Sensor Size(mm)	ϕ82		
Image Size	5		
Base Multiplier	0.22X	0.26X	0.3X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.002%		
Relative Illumination	90%		
Working distance(mm)	752	644	571
Conjugate distance (mm)	968	865	799
Mount	M72		

PMS-LLC033-14640M-M72

Focal Length:146mm

16K Lens Series

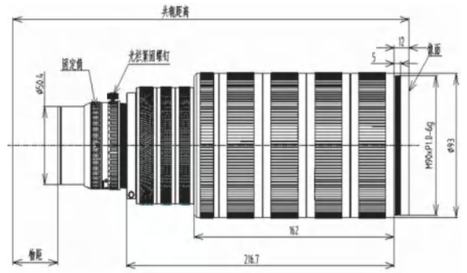


Max.Sensor Size(mm)	ϕ82		
Image Size	5		
Base Multiplier	0.3X	0.33X	0.37X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.002%		
Relative Illumination	90%		
Working distance(mm)	571	533	482
Conjugate distance (mm)	799	764	720
Mount	M72		

PMS-LLC075-14640M-M72

Focal Length:146mm

16K Lens Series

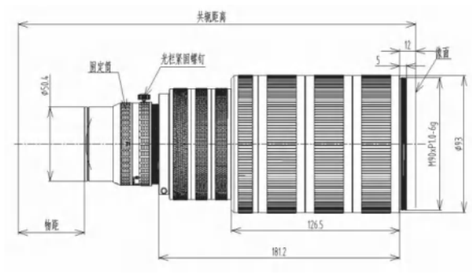


Max.Sensor Size(mm)	ϕ82		
Image Size	5		
Base Multiplier	0.7X	0.75X	0.85X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.002%		
Relative Illumination	90%		
Working distance(mm)	304	286	267
Conjugate distance (mm)	581	574	443
Mount	M72		

PMS-LLC05-14640M-M72

Focal Length:146mm

16K Lens Series

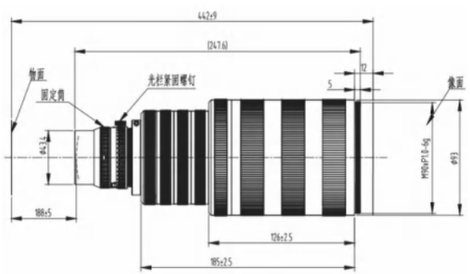


Max.Sensor Size(mm)	ϕ82		
Image Size	5		
Base Multiplier	0.46X	0.5X	0.54X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.002%		
Relative Illumination	90%		
Working distance(mm)	417	383	357
Conjugate distance (mm)	659	632	613
Mount	M72		

PMS-LLC1-14640M-M72

Focal Length:146mm

16K Lens Series

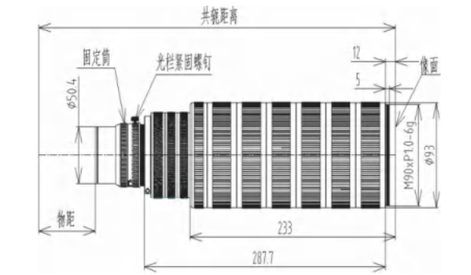


Max.Sensor Size(mm)	ϕ82		
Image Size	5		
Base Multiplier	0.92X	1X	1.08X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.001%		
Relative Illumination	90%		
Working distance(mm)	198	188	197
Conjugate distance (mm)	443	442	442
Mount	M72		

PMS-LLC133-14640M-M72

Focal Length:146mm

16K Lens Series

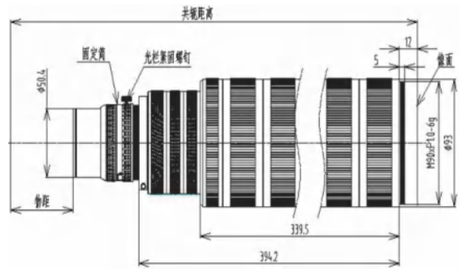


Max.Sensor Size(mm)	ϕ82		
Image Size	5		
Base Multiplier	1.2X	1.33X	1.5X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.001%		
Relative Illumination	90%		
Working distance(mm)	216	204	192
Conjugate distance (mm)	567	574	586
Mount	M72		

PMS-LLC2-14640M-M72

Focal Length:146mm

16K Lens Series

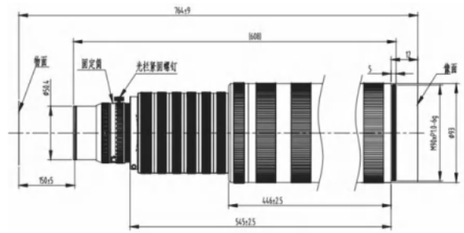


Max.Sensor Size(mm)	φ82		
Image Size	5		
Base Multiplier	1.75X	2.0X	2.25X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.001%		
Relative Illumination	90%		
Working distance(mm)	179	632	690
Conjugate distance (mm)	606	632	690
Mount	M72		

PMS-LLC3-14640M-M72

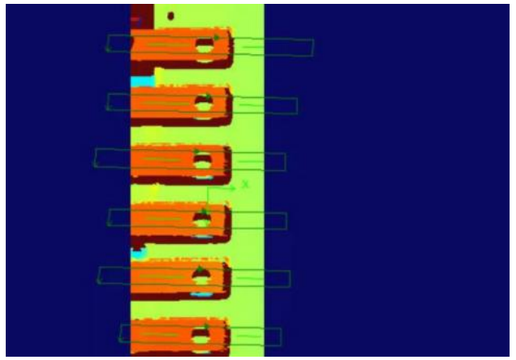
Focal Length:146mm

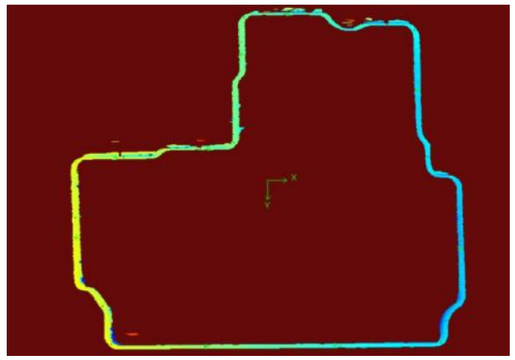
16K Lens Series

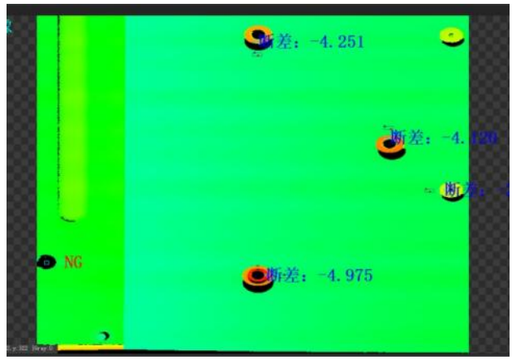


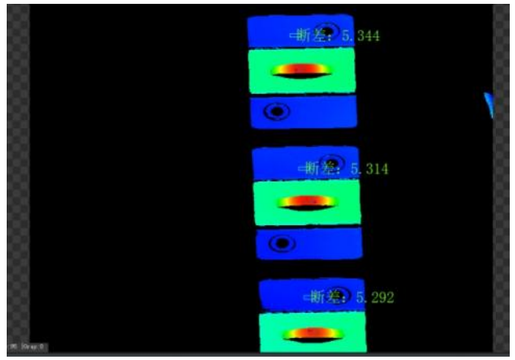
Max.Sensor Size(mm)	φ82		
Image Size	10		
Base Multiplier	0.27X	3.0X	3.5X
Iris Range	4.0~16		
Focal Length (mm)	146		
Distortion	<0.002%		
Relative Illumination	90%		
Working distance(mm)	157	150	144
Conjugate distance (mm)	717	764	826
Mount	M72		

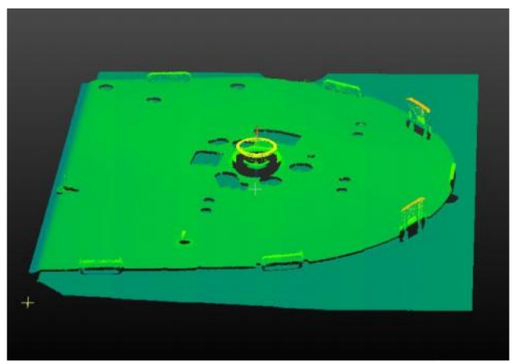
PRODUCT CASES

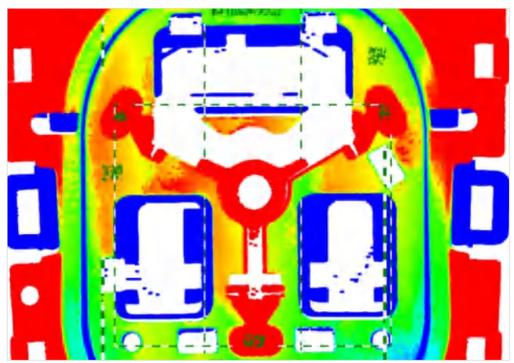




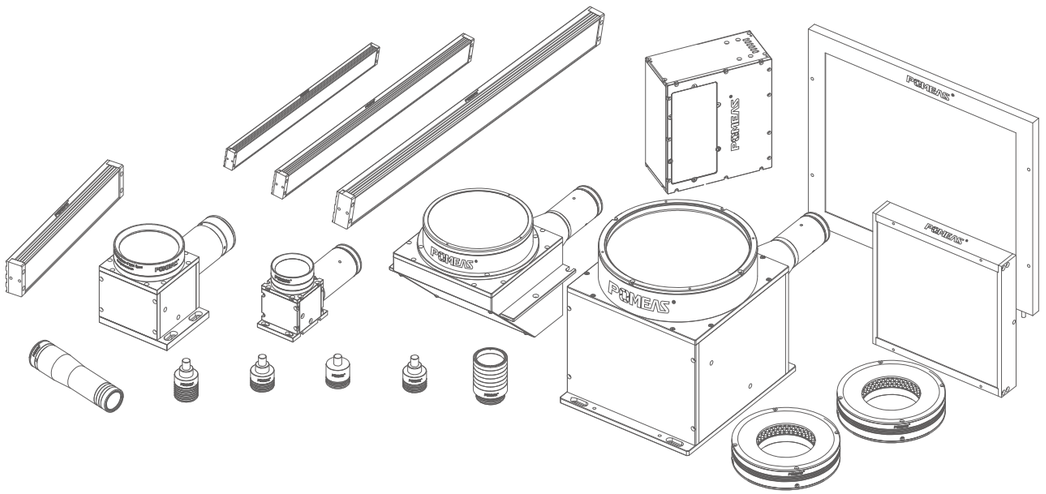






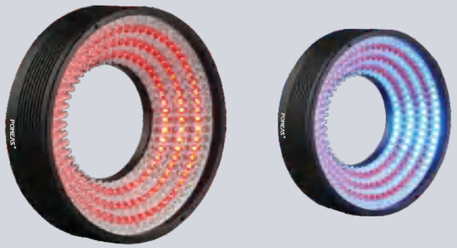


ILLUMINATION SERIES



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.



Ring Light Source Series

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

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.					

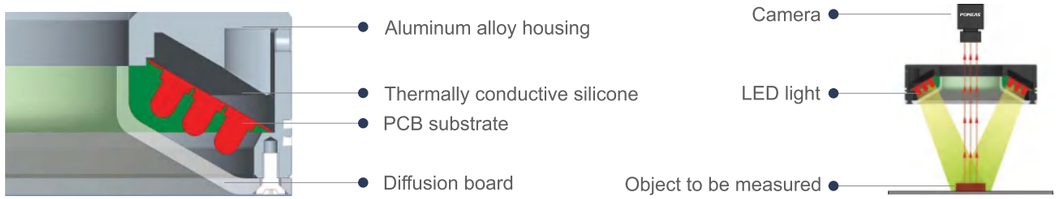
PRODUCT ADVANTAGES

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



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
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

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Serial Number	Model	Outer Diameter	Angle	Color	Voltage	Power	CT /Wavelength	Number Of LED Rings	Option
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
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

Serial Number	Model	Outer Diameter	Angle	Color	Voltage	Power	CT /Wavelength	Number Of LED Rings	Option
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

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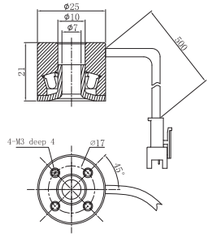	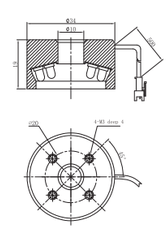	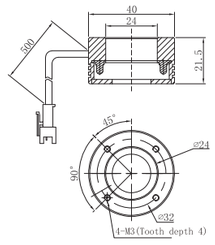	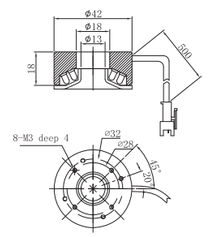
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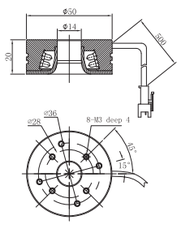	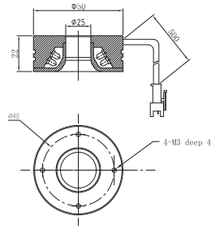	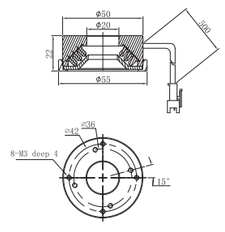	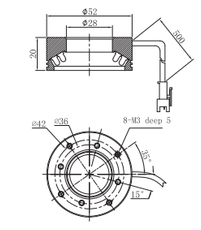

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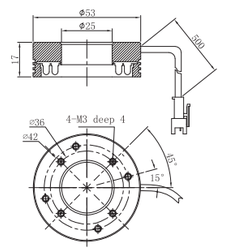	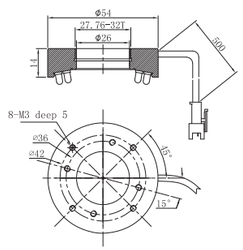	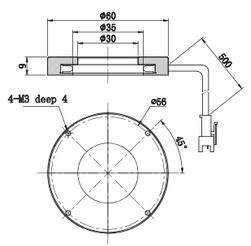	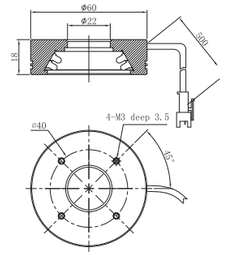
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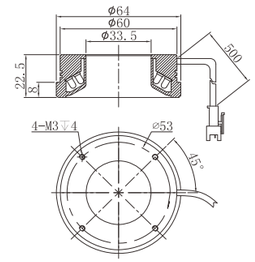	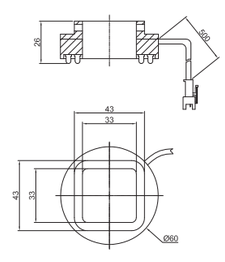	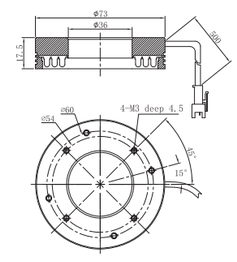	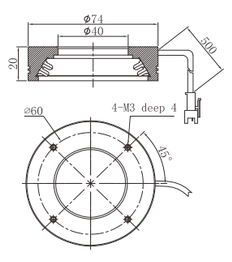
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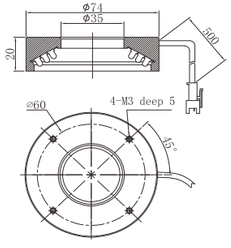	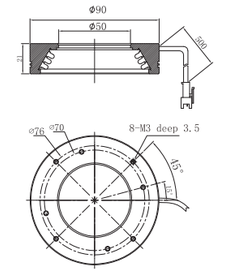	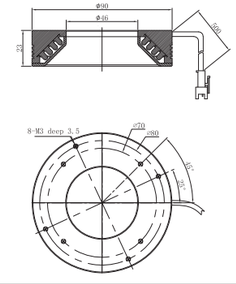	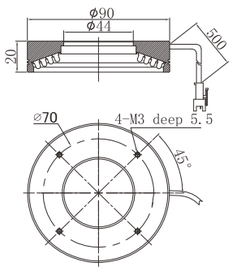
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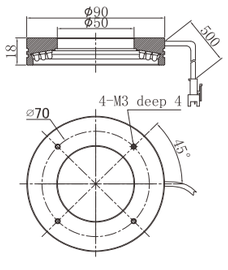	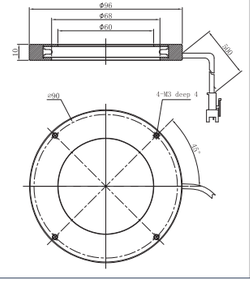	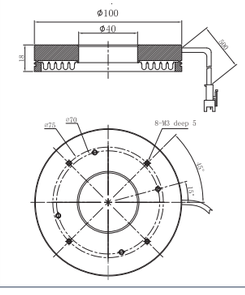	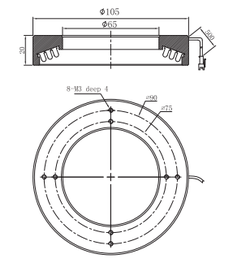

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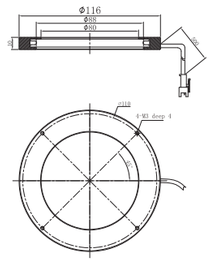	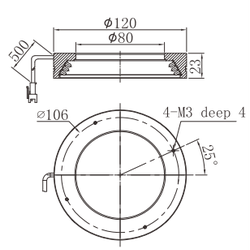	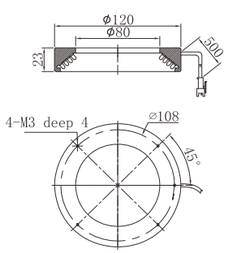	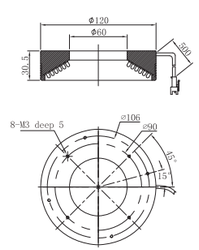
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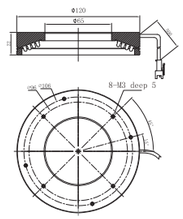	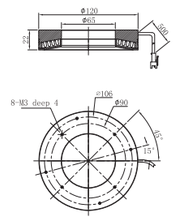	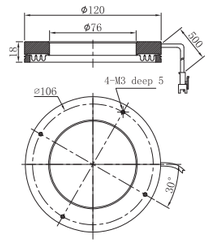	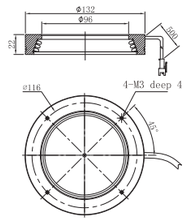
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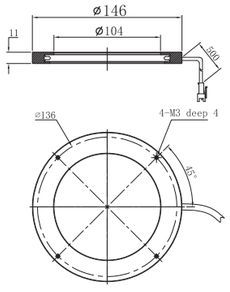	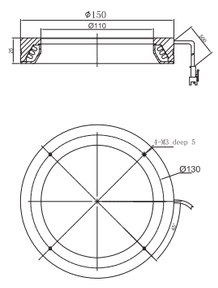	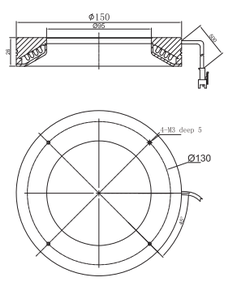	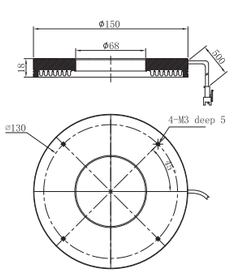
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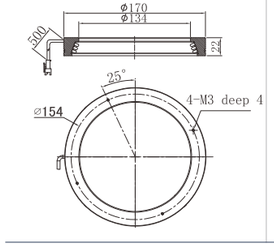	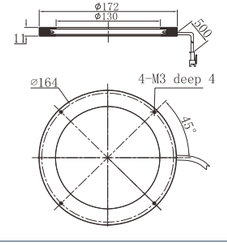	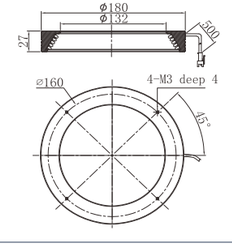	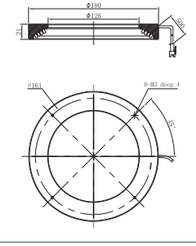

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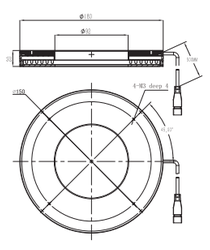	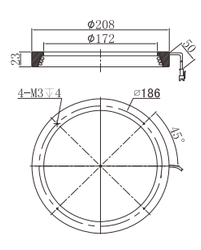	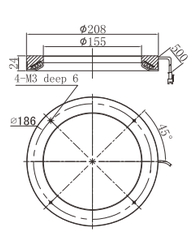	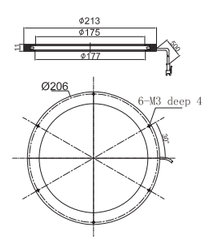
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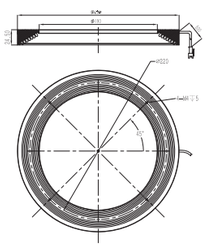
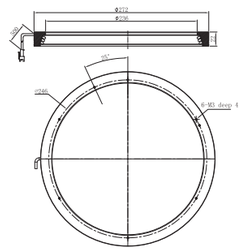
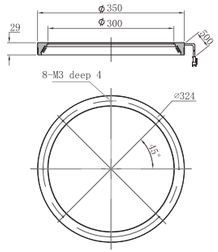
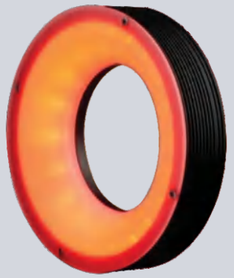
			



Shadowless Ring Light Source Series

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

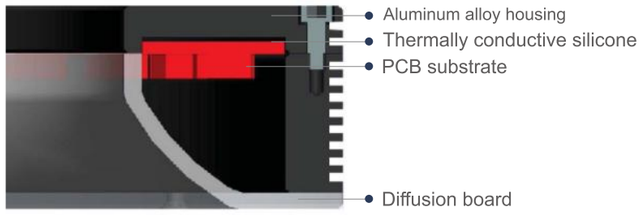
Parameter Description

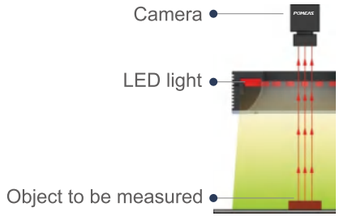
Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension 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 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





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

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 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

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

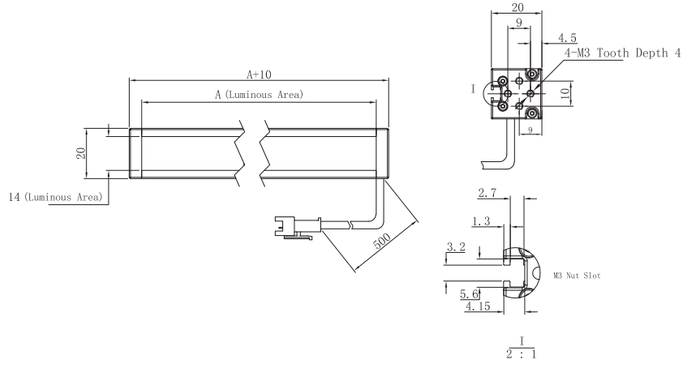
Serial Number	Model	Luminous area	Color	Voltage	Power	CT /Wavelength	Number Of LED Rows	Option
1	PMS-GBRL-50X14R/W/B	50mm x 14mm	Red	24V	0.8W	625nm	3 rows	Diffusion Board
		50mm x 14mm	White	24V	1.2W	6500K	3 rows	Diffusion Board
		50mm x 14mm	Blue	24V	1.2W	470nm	3 rows	Diffusion Board
2	PMS-GBRL-100X14R/W/B	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

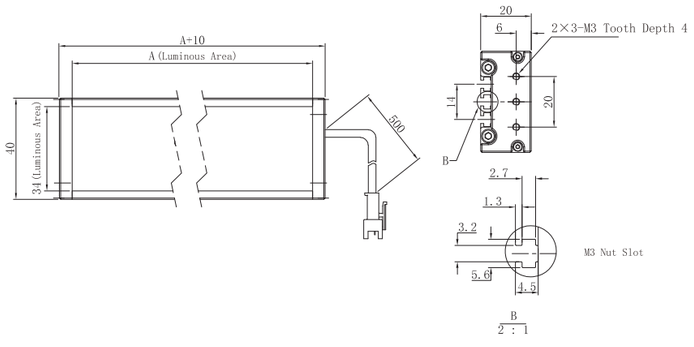
Serial Number	Model	Luminous area	Color	Voltage	Power	CT /Wavelength	Number Of LED Rows	Option
1	PMS-GBRL-50X34R/W/B	50mm x 34mm	Red	24V	1.6W	625nm	6 rows	Diffusion Board
		50mm x 34mm	White	24V	2.4W	6500K	6 rows	Diffusion Board
		50mm x 34mm	Blue	24V	2.4W	470nm	6 rows	Diffusion Board
2	PMS-GBRL-100X34R/W/B	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.

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.					

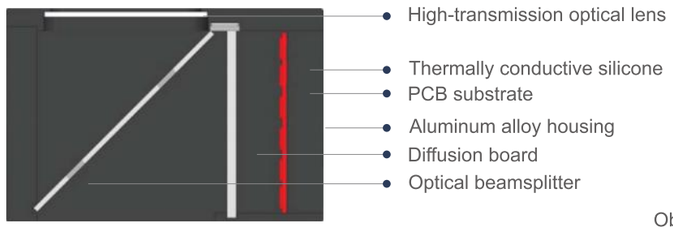
PRODUCT ADVANTAGES

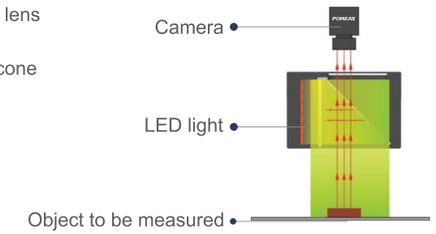
The coaxial light source uses a high-density array of LEDs to emit high-intensity uniform light through a semi-lens surface with a special coating that keeps the reflected light from the workpiece and the CCD The camera is on the same axis and eliminates ghost images of the collected images. This series 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

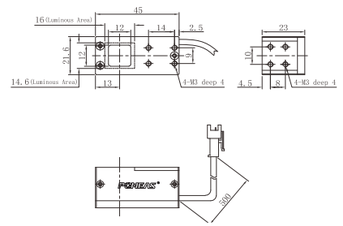




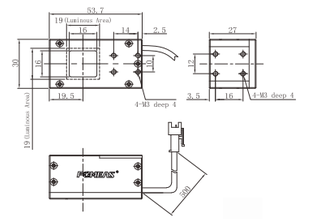
Product Model Specification

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
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

PMS-GCOL-14X14R/W/B



PMS-GCOL-18X18R/W/B



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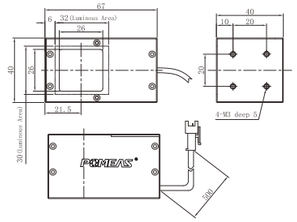
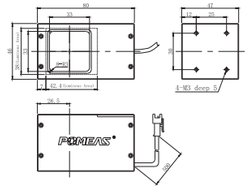


PMS-GCOL-40X40R/W/B



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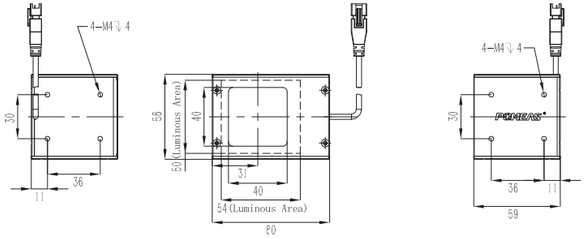

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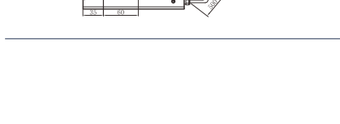

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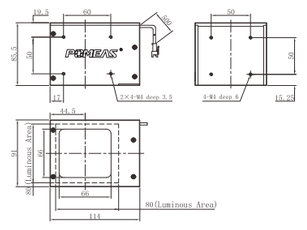
PMS-GCOL-80X80R/W/B



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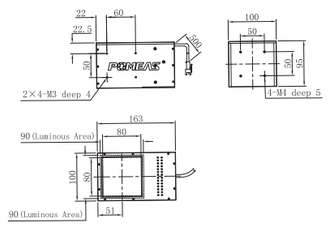

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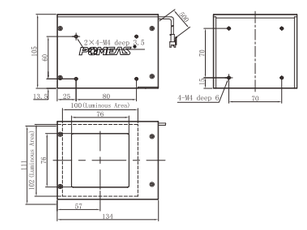

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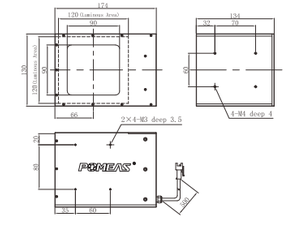

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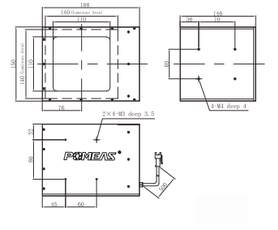
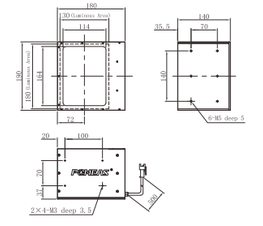
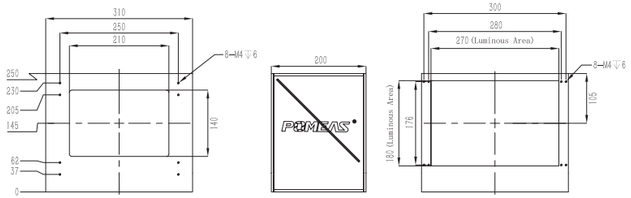


PMS-GCOL-180X130R/W/B



PMS-GCOL-270X180R/W/B



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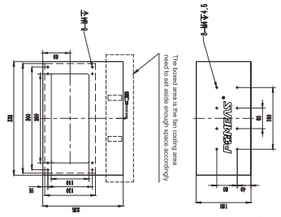
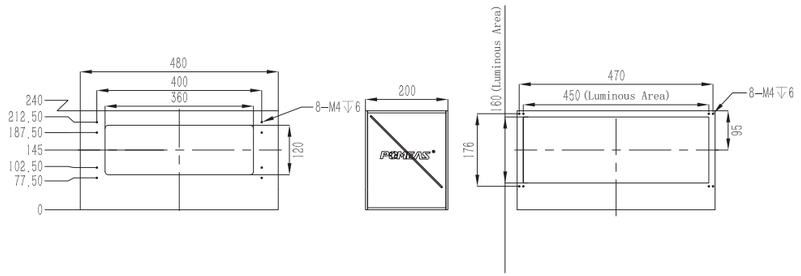
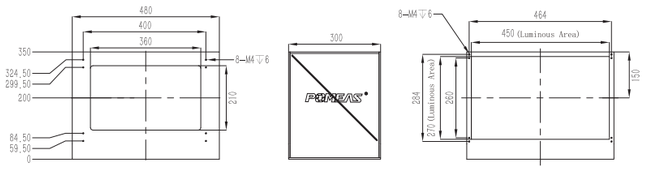


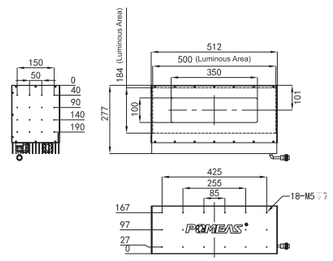
PMS-GCOL-450X160R/W/B



PMS-GCOL-450X270R/W/B



PMS-GCOL-500X184R/W/B



Surface Light Source Series

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.					

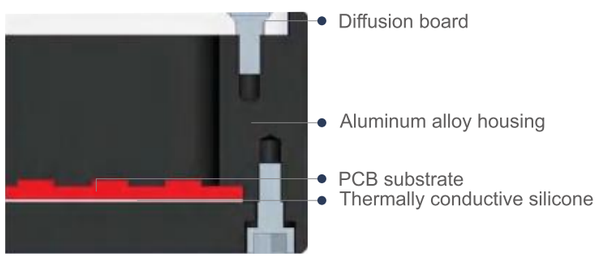
PRODUCT ADVANTAGES

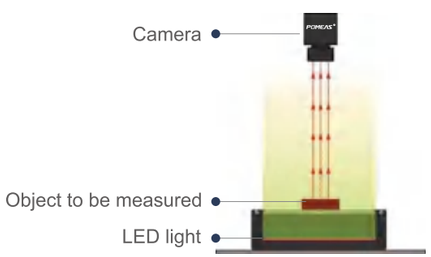
Surface light source is a flat lighting source, LED by the structure of the optimization of uniform cloth in the bottom of the light source, after diffusion guide plate on the surface to form a uniform irradiation light. Externally with Pumis designed light-boosting sheet, its light source brightness 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

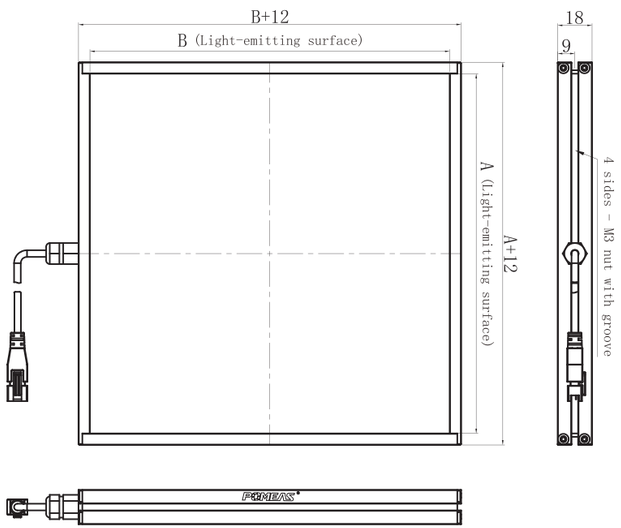




Product Model Specification

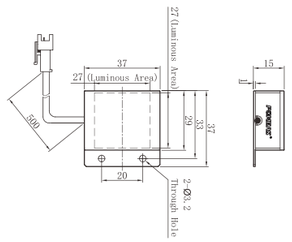
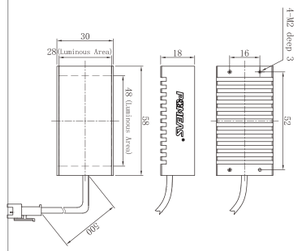
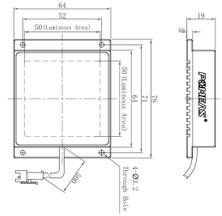
Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
1	PMS-BKL-200X250R/W/B	200mm x 250mm	Red	24V	27W	625nm
		200mm x 250mm	White	24V	40W	6500K
		200mm x 250mm	Blue	24V	40W	470nm
2	PMS-BKL-200X300R/W/B	200mm x 300mm	Red	24V	32W	625nm
		200mm x 300mm	White	24V	48W	6500K
		200mm x 300mm	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



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

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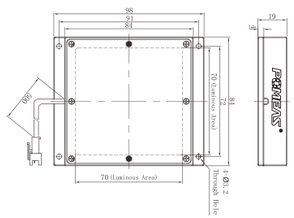	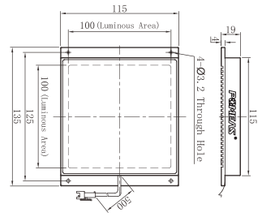	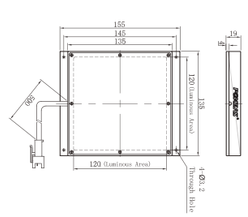
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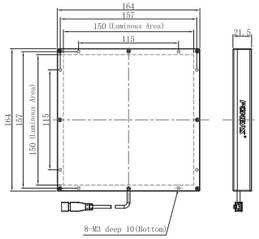	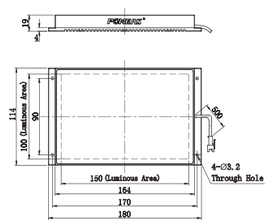	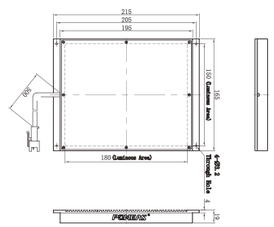
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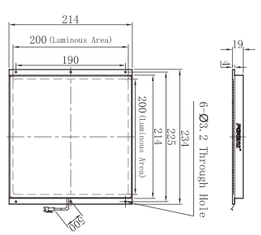	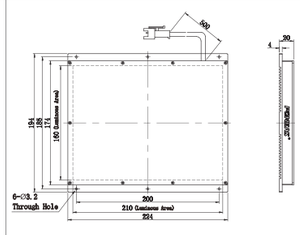	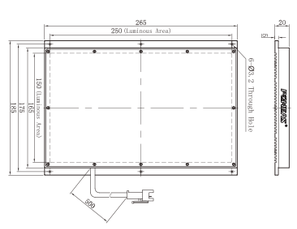
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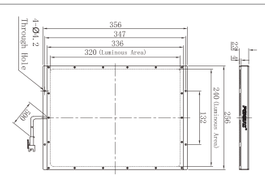
		

Parallel Surface Light Source Series

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.					

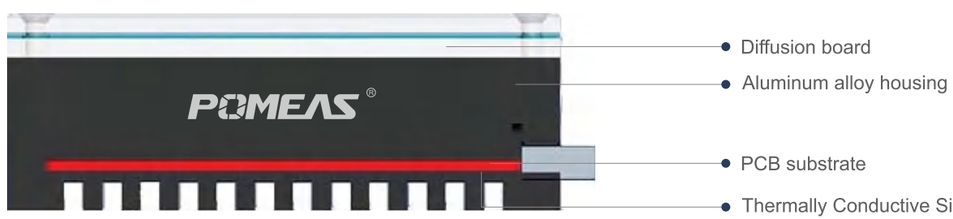
PRODUCT ADVANTAGES

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

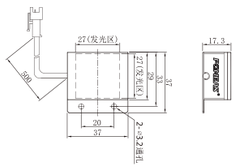


Product Model Specification

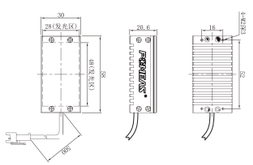
Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
1	PMS-BHL-27X27R/W/B	27mm x 27mm	Red	24V	0.8W	625nm
		27mm x 27mm	White	24V	1.2W	6500K
		27mm x 27mm	Blue	24V	1.2W	470nm
2	PMS-BHL-48X28R/W/B	48mm x 28mm	Red	24V	1.6W	625nm
		48mm x 28mm	White	24V	2.4W	6500K
		48mm x 28mm	Blue	24V	2.4W	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

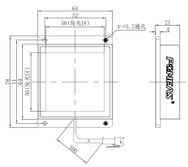
PMS-BHL-27X27R/W/B



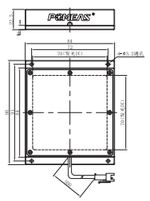
PMS-BHL-48X28R/W/B



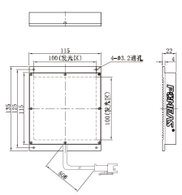
PMS-BHL-50X50R/W/B



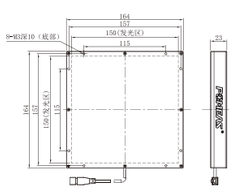
PMS-BHL-70X70R/W/B



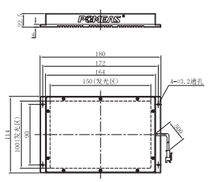
PMS-BHL-100X100R/W/B



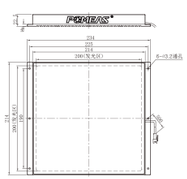
PMS-BHL-150X150R/W/B



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 Parameter Table

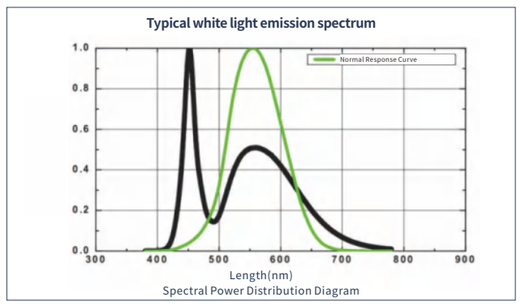
Model	Beam Diameter	Working Distance	Mechanical Specifications		Forward Voltage	Forward Current	Available Colors
			Outer Diameter	Length			
PMS-LTD-30R/G/B/W	30mm	45-90mm	43.5mm	121.16mm	3.5V	350mA	
PMS-LTD-60R/G/B/W	60mm	90-180mm	72mm	180mm			
PMS-LTD-100R/G/B/W	100mm	150-300mm	174mm	276mm			
PMS-LTD-145R/G/B/W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

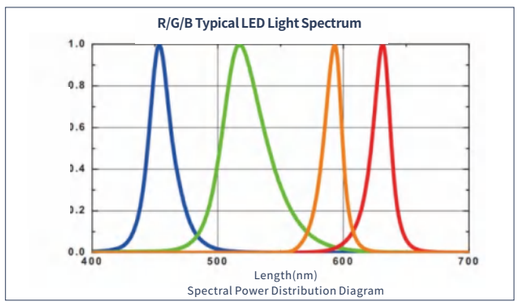
PRODUCT ADVANTAGES

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

EMISSION SPECTRUM





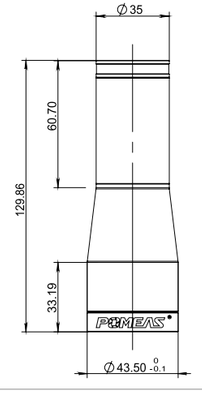
Corner Parallel
Light Source Series

Product Parameter Table

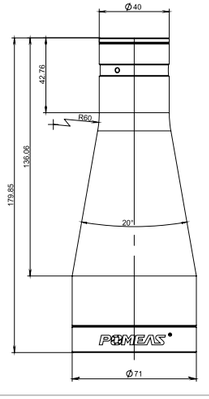
Model	Beam Diameter	Working Distance	Mechanical Specifications			Forward Voltage	Forward Current	Available Colors
			Length	Width	Thickness			
PMS-LTD-30LR/G/B/W	30mm	45-90mm	121.16mm	43.5mm	62.39mm	3.5V	350mA	
PMS-LTD-60LR/G/B/W	60mm	90-180mm	171.5mm	73mm	92mm			
PMS-LTD-100LR/G/B/W	100mm	150-300mm	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

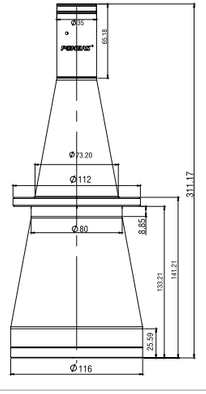
PMS-LTD-30R/G/B/W



PMS-LTD-60R/G/B/W

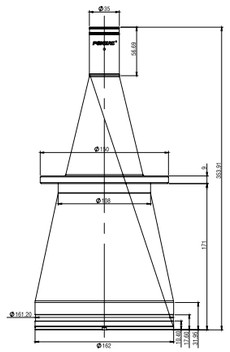


PMS-LTD-100R/G/B/W

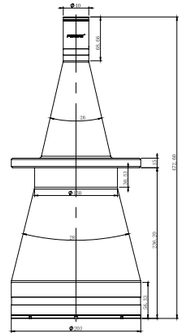


Product Size Diagram

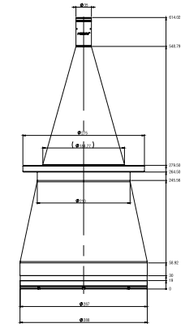
PMS-LTD-145R/G/B/W



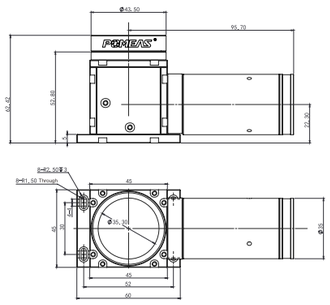
PMS-LTD-189R/G/B/W



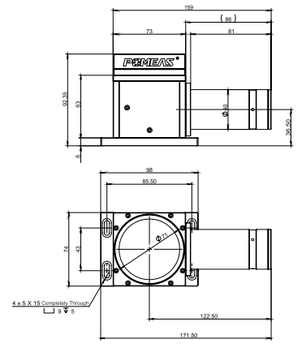
PMS-LTD-265R/G/B/W



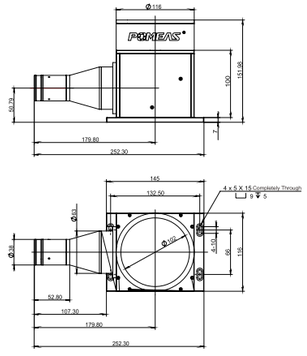
PMS-LTD-30LR/G/B/W



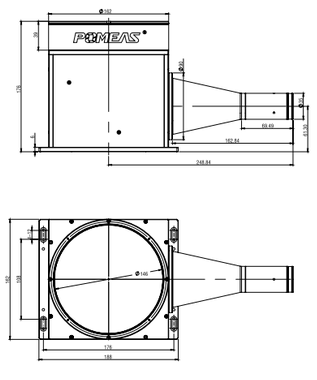
PMS-LTD-60LR/G/B/W



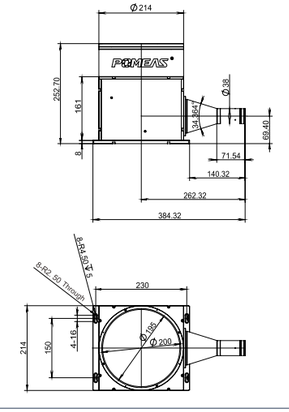
PMS-LTD-100LR/G/B/W



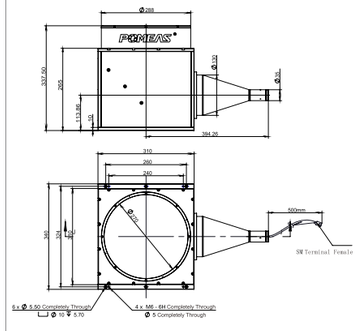
PMS-LTD-145LR/G/B/W



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.

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

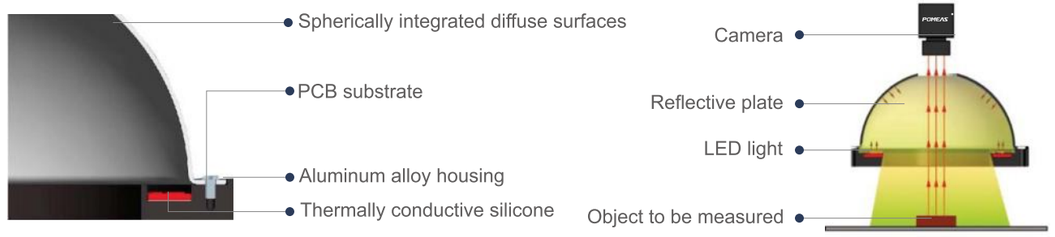
PRODUCT ADVANTAGES

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

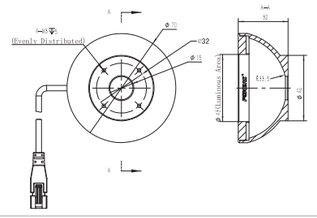
1. Detect reflective, uneven surface
2. Detect IC surface characters
3. Detecting the broken surface of capacitor, etc.
4. Detecting the spray code on the bottom of cans
5. Detect the instrument panel with glass surface
6. Detecting the polarity of the capacitor with uneven height on the circuit board"

LIGHT SOURCE STRUCTURE

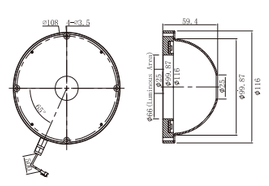


Product Size Diagram

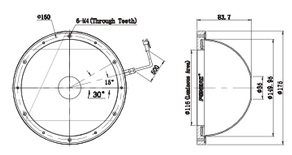
PMS-GR-70-H15R/W/B



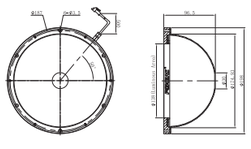
PMS-GR-116-H25R/W/B



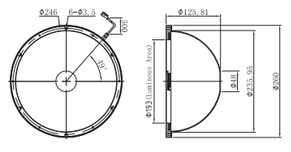
PMS-GR-175-H35R/W/B



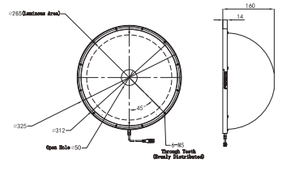
PMS-GR-198-H30R/W/B



PMS-GR-260-H48R/W/B



PMS-GR-325-H50R/W/B



Point Light Source Series

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

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

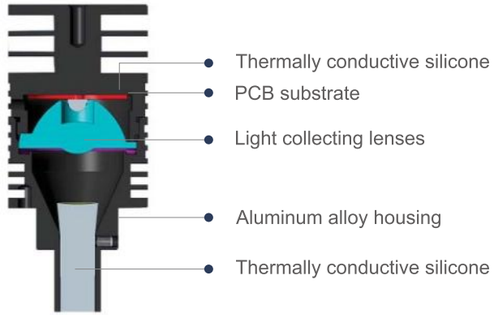
PRODUCT ADVANTAGES

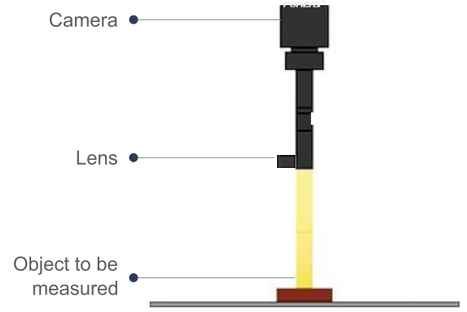
The point light source has the advantages of high brightness and small light-emitting area, etc. The point light source with a tip diameter of 8mm or 9mm and a light-emitting surface diameter of 6mm, in the machine vision system. It can be used alone or with microscope head or telecentric lens with coaxial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

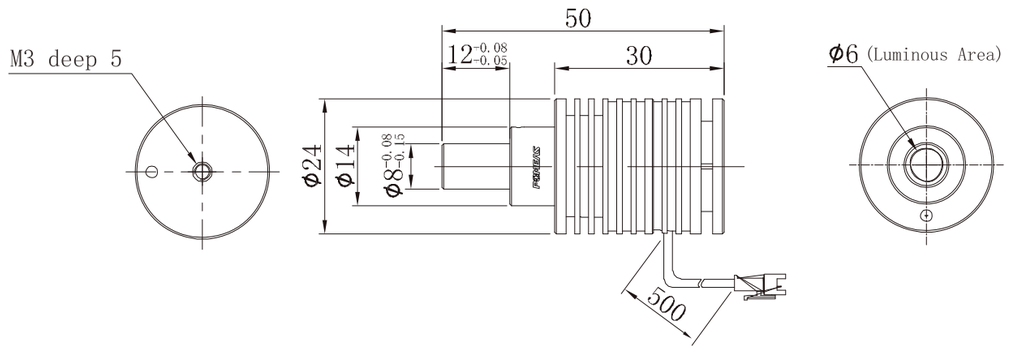
LIGHT SOURCE STRUCTURE



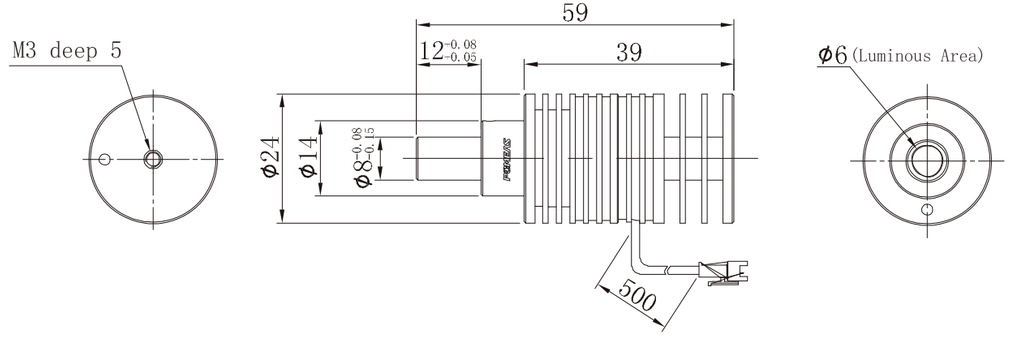


Product Size Diagram

PMS-GPI-0801R/W/B



PMS-GPI-0803R/W/B



Infrared Light Source Series

Infrared light source has stronger penetration than conventional visible light.

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

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.

Ultraviolet Light Source Series

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

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

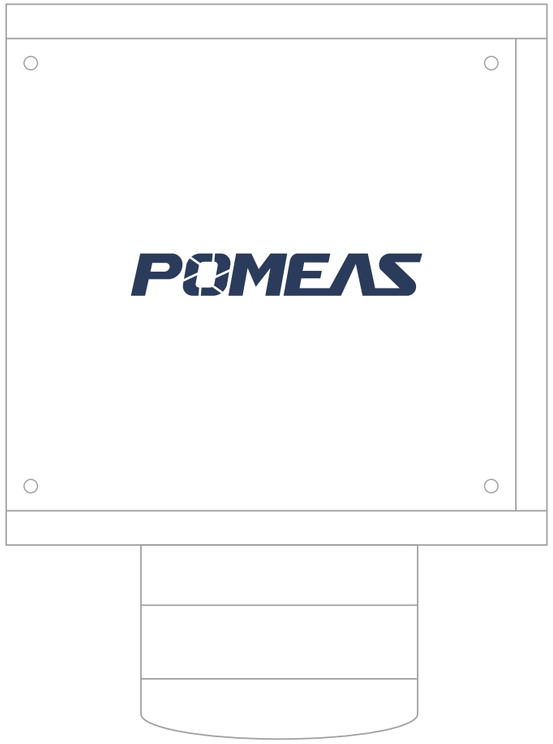
PRODUCT ADVANTAGES

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.

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 Seri

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

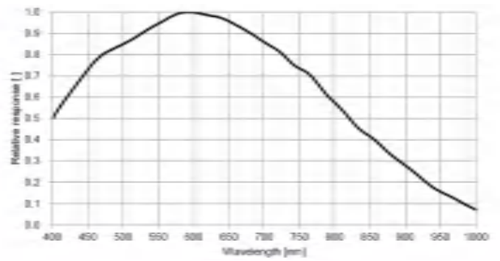
1. New hardware platform, optimize logic resources, significantly reduce power consumption.
2. Support automatic or manual adjustment of gain, exposure time, white balance, LUT, Gamma correction, etc.
3. Camera implanted with noise reduction, CCM and other functions, excellent image quality.
4. Gigabit 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

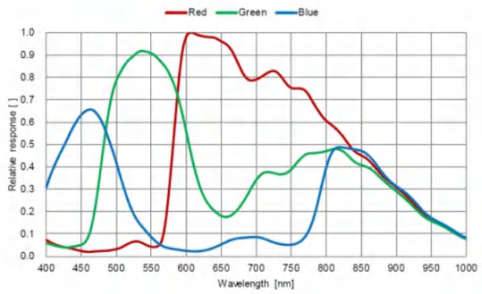
Suitable for electronic semiconductor, factory automation, food and beverage, pharmaceutical packaging, and image measurement industries.

Model	Pixel	Sensor Type	Resolution	Frame Rate(fps)	Dynamic Range	Data interface	Color	Image Eiement(μm)	Sensor
PMS-CCN-013D15BSC	1.3MP	CMOS	1280x1024	60	60db	GigE POE	B&W	4.8x4.8	1/2"
PMS-CCN-013D15CSC	1.3MP	CMOS	1280x1024	60	60db	GigE POE	Color	4.8x4.8	1/2"
PMS-CCN-020M15CSC	2MP	CMOS	1920x1080	22	Support DOL Mode HDR	GigE POE	Color	2.9x2.9	1/2.8"
PMS-CCN-020Q25BSC-30	2MP	CMOS	1920x1200	39	70db	GigE POE	B&W	5.86x5.86	1/1.2"
PMS-CCN-050E15BSC	5MP	CMOS	2448x2048	20	70db	GigE POE	B&W	3.45x3.45	2/3"
PMS-CCN-050E15CSC	5MP	CMOS	2448x2048	20	70db	GigE POE	Color	3.45x3.45	2/3"
PMS-CCN-060C15BSC	6MP	CMOS	3072x2048	18	66db	GigE POE	B&W	2.4x2.4	1/1.8"
PMS-CCN-060C15CSC	6MP	CMOS	3072x2048	18	66db	GigE POE	Color	2.4x2.4	1/1.8"
PMS-CCN-100K15BSC	10MP	CMOS	3840x2748	10	65db	GigE POE	B&W	1.67x1.67	1/2.3"
PMS-CCN-120P15BSC	12MP	CMOS	4096x3000	9	70db	GigE POE	B&W	3.45x3.45	1/1"
PMS-CCN-120P15CSC	12MP	CMOS	4096x3000	9	70db	GigE POE	Color	3.45x3.45	1/1"

Sensor Response Curve

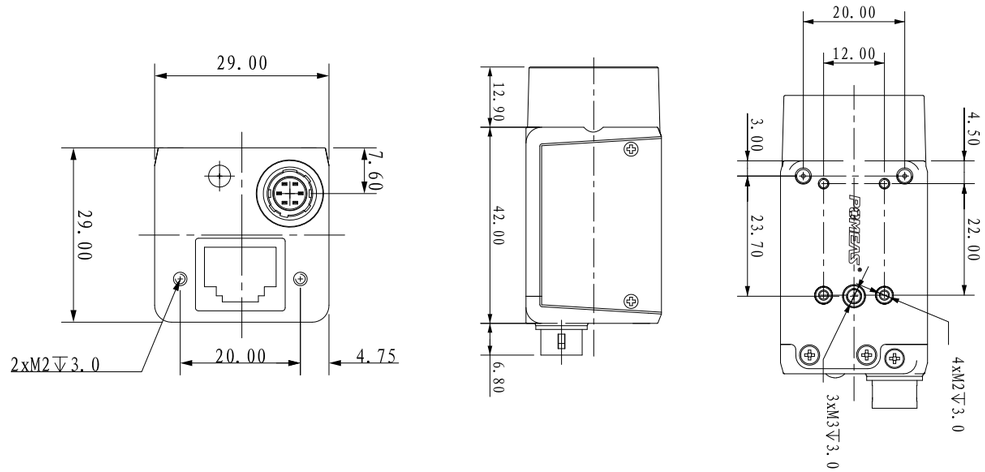


PMS-CCN-016B14BSC Quantum Efficiency

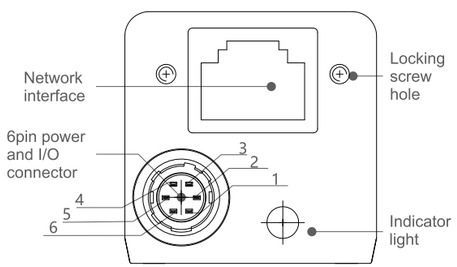


PMS-CCN-016B14CSC Quantum Efficiency

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

VGA Camera Parameter

Code	PSM-VGA100	PSM-VGA130-A	PSM-VGA130-B
Resolution	1280x720	1280x1024	1280x1024
FPS	60	30	30
Pixel Size	3.75μmx3.75μm	4.4μmx4.4μm	4.4μmx4.4μm
Sensor	1/3"	1/3"	1/2.5"
Output	VGA	VGA	VGA
White Balance	One button set-up,can adjust manually or automatically		
Avold Glare Option	3 grade option	One button	One button
Edge Sharpness Mode	3 grade option	No	No
Color Adjustment	R/G/B adjustable independentdly	R/G/B adjustable independentdly	R/G/B adjustable independentdly
Inner Reticle	Center reticle or 8 movable lines		
Mount	C-Mount	C-Mount	C-Mont
Voltage Input	DC-5V	DC-5V	DC-5V
Dimension	51mmx51mmx57mm	52.5mmx51mmx60mm	61mmx61mmx65mm
Working Temperature	0℃~80℃	0℃~80℃	0℃~80℃
Photo Storage SD	No	No	Sd card

Feature:

1. Mega pixels, 1280x1024;
2. Progressive scanning, ensure sharp image without twinkle;
3. SD card storage function;
4. 8:8:8 RBG full color output;
5. Connect directly with display, vivid color;
6. inbuilt function menu, user friendly;
7. Stable 30fps output, no real-time delay.

HDMI Camera	
Code	PMS-HM200
Resolution	2MP 1920x1080
FPS	60
Pixel Size	3.75μm
Sensor	1/3"
Output	HDMI
White Balance	One Button For White Balance
Avoid Glare Option	3 grade option
Edge Sharpness Mode	3 grade option
Color Adjustment	R、G、B adjustable independedly
Inner Reticle	Center reticle or 8 movable lines
Line Width	One Pixel
Mount	C-Mount
Voltage Input	DC-5V
Dimension	61mm x 61mm x 57mm
Working Temperature	0℃~50℃
Photo Storage SD	Memory Card(below 32G),Photoing hand shank/button

Feature:

1. 2MP high resolution, 1920x1080;
2. 60/fps high speed image, no delay in real-time;
3. New color calculation, ensure the real color;
4. HDMI digital high resolution output, support 16:9 display;
5. Independent color adjustment, special multiply wide dynamic function;
6. With cross line, it can be moved and overly;
7. SD card storage function;
8. With edge enhancement mode, it can improve the special image performance.

Large Format Industrial Camera										
Code	Sensor	Sensor Type	Shutter Type	Resolution	Frame rate(fps)	Depth(bit)	Connector	Colour	Pixel(μm)	Target Surface
PMS-CCN-120H15CSF	PYTHON 12K	CMOS	Global	4096x3072	9	10	GigE	coloured	4.5X4.5	4/3"

Code	PMS-CCN-120H15CSF
Pixel	12MP
Signal-to-noise ratio	>41dB
Wide Dynamic	58db
GPIO General Interface	12 pole Hirose connector for external power supply, 3 opto-coupler isolated inputs, 3 opto-coupler isolated outputs, 1 RS232 serial interface
Image Format	Mono8,BayerRG8/10/10Packed, BayerGB8/10/10Packed, YUV422Packed
ROI	Support
Gain	X1~X32
Gamma	Range 0~4, Support LUT
Shutter Exposure	1us~1s
Image Acquisition Model	Software Trigger/Hardware Trigger/Free Motion
Image Buffer	256MB data cache
Memory Channel	Support 2 groups of user-defined configuration saving
Size	72mmX72mmX46mm
Weight	430g
Power Supply	DC12V-26V
Power Consumption	24V≈9W
Lens Interface	M58x0.75
Working Temperature	Storage temperature:-30℃~+80℃;Working temperature:-30℃~+50℃

PRODUCT ADVANTAGE

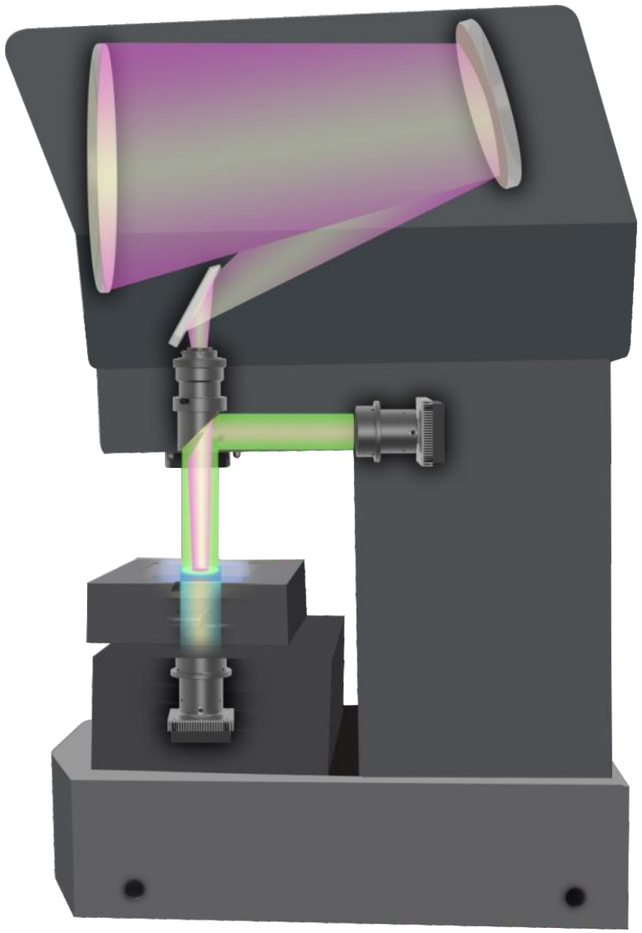
- Gigabit Ethernet interface, providing 1Gbps bandwidth, maximum transmission distance up to 100m.
- 256MB on-board cache for data transmission or image retransmission in burst mode.
- Support software trigger/hardware trigger/free running and other trigger modes.
- Support ISP functions such as sharpness, noise reduction, auto exposure, black level correction, gamma correction, LUT and so on.
- Colour camera support interpolation, white balance, colour conversion matrix, chroma, saturation, etc..
- Support a variety of image data format output, RO1, Binning, mirroring and so on.
- In line with GigE VisionV2.0 protocol and Genlcam standards.
- Support DC12-24V wide voltage power supply.

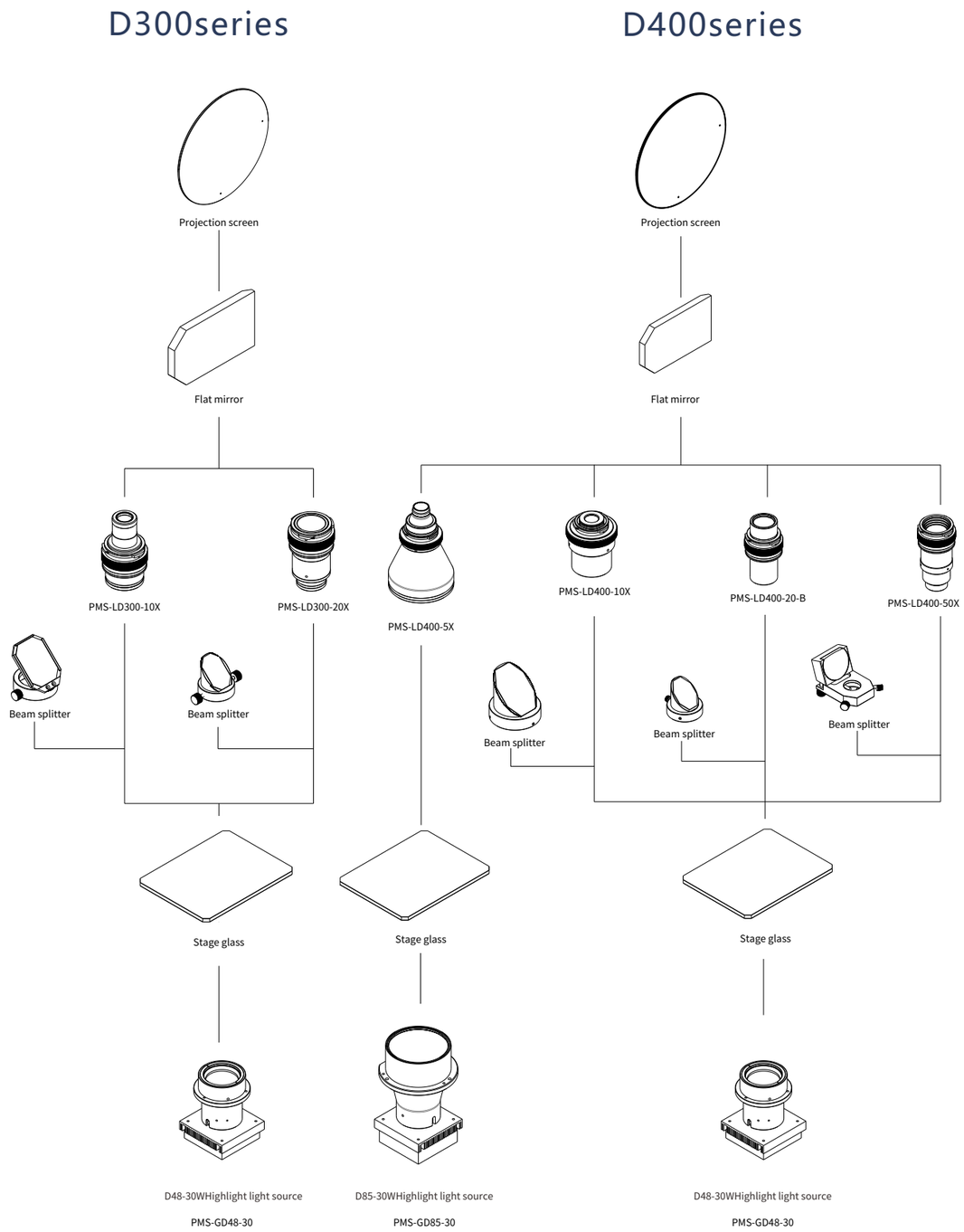
AREAS OF APPLICATION

Suitable for railway industry, LCD industry, glass surface inspection and other kinds of industrial inspection and scientific research.

MEASUREMENT PROFILE PROJECTOR PARTS SERIES

The main products include: projection lens, projection LED light source, projection screen, flat reflector, carrier table glass.





PRODUCT ADVANTAGES

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

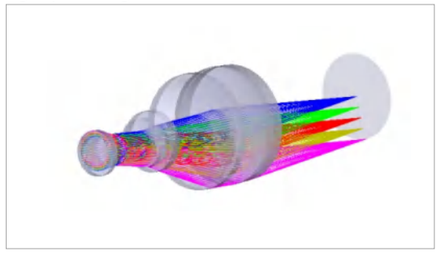
Projection Lens D300 Series

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

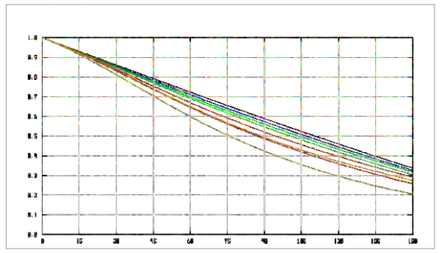
Projection Lens D400 Series

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

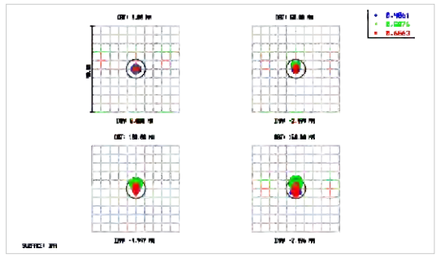
Light path diagram



MTF graph



Spot



Projection Screen With Uniform Surface Frosted Density Andlow Dispersion Loss

PRODUCT ADVANTAGES

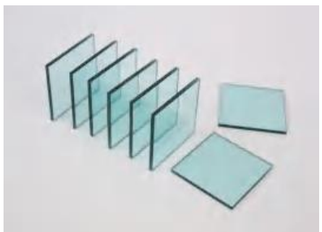
1. Low dispersion loss reduces light energy loss.
2. Surface matte density is uniform, can form a uniform diffusion.
3. Precision scale, clear and sharp lines.

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

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.

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.

High Brightness, High Flatness Good Uniformity Projection Led Light Source

PRODUCT ADVANTAGES

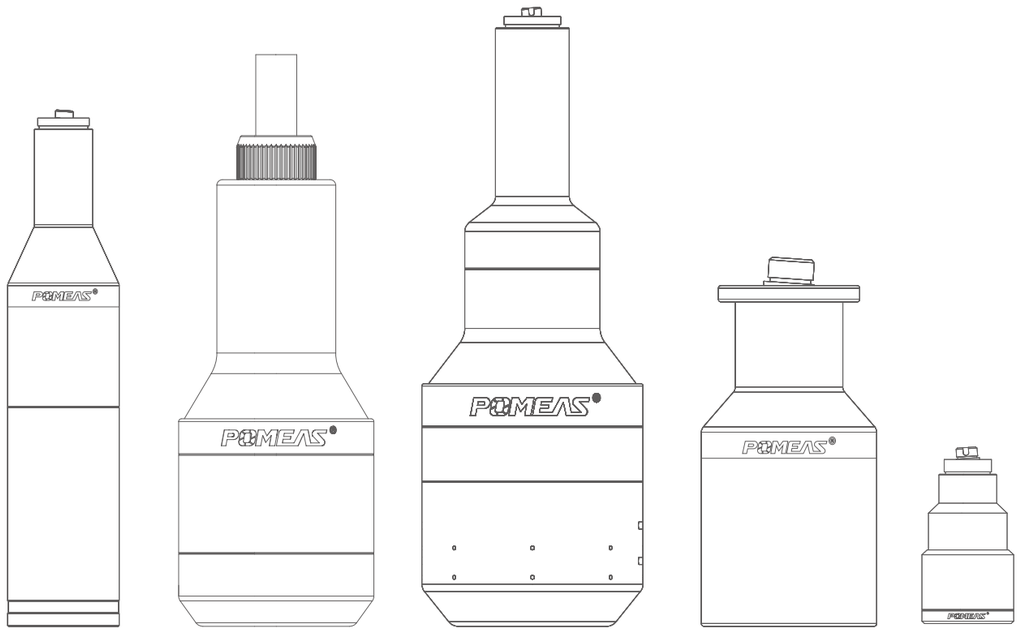
1. High brightness.
2. High parallelism.
3. Good uniformity.

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

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 Sensor

Available for all materials - More accurate and stable measurements -Full range of application solutions.

Sensor Parameter Table

Code		PMS-SFS-D8012	PMS-SFS-D8020	PMS-SFS-D8022	PMS-SFS-D8040	PMS-SFS-D8055	PMS-SFS-D8080
Nearest Measurement Distance		13.8mm	20mm	22mm	40mm	55mm	80mm
Measurement Range		1mm	1.6mm	2mm	7mm	6mm	6mm
Max. Light Angle		±29.3°	±45°	±17°	±20.2°	±13.6°	±11°
N.A.		0.45	0.56	0.27	0.31	0.23	0.2
Spot Diameter	ϕ20μm	ϕ4μm	ϕ2.9μm	ϕ15.5μm	ϕ13.6μm	ϕ17μm	ϕ14μm
	ϕ50μm	ϕ10μm	ϕ7.3μm	ϕ38.8μm	ϕ34μm	ϕ42.6μm	ϕ35μm
	ϕ110μm	ϕ22μm	ϕ16μm	ϕ85.4μm	ϕ74.8μm	ϕ93.7μm	ϕ77μm
Outer Diameter		ϕ27mm	ϕ90mm	ϕ31mm	ϕ69mm	ϕ35mm	ϕ50mm
Length. Max		148.45mm	250.39mm	62mm	162.5mm	66.8mm	235.78mm
Maximum linear error		0.02%F.S.	0.02%F.S.	0.02%F.S.	0.02%F.S.	0.02%F.S.	0.02%F.S.

*1: Measurement of the value of our standard workpiece (mirror body) by displacement mode.

APPLICATION INDUSTRIES

- Mobile phone, tablet, computer and other metal chassis machine processing manufacturing industry;
- PCB boards, connectors, IC chips and other electronic industries;
- Panel, glass, tempered film and other industries;
- Semiconductor wafer, new energy, photovoltaic and other industries.

APPLICATION FEATURES

- Stable measurement of all kinds of materials, such as metal/ceramics/mirror/glass;
- Suitable for all kinds of workpiece shape (including deep holes/bevelled surfaces/curved surfaces), such as height/segment difference/thickness/flatness/profile measurement;
- Can be used under severe operating conditions such as high temperature and high pressure;
- The probe is lightweight and easy to integrate into automated measurement applications in a wide range of industries.

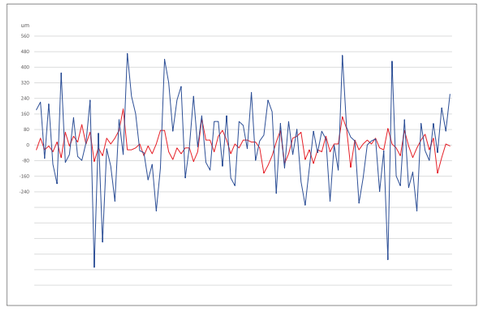
Control Box Introduction

- Dual channel
- XYZ linear scale
- Support scanning point cloud
- Through-beam thickness measurement
- Analog output (seamless piezo actuation)
- Support 1~2 motor trapezoidal acceleration and deceleration control.

Control Box Parameter

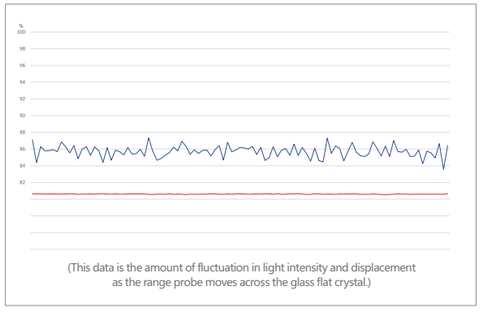
Code	PMS-SFS-C8000D	PMS-SFS-C8000
No. of probe connections	2	1
Sampling Frequency	200 to 2000 points /sec user definable	200 to 2000 points /sec user definable
Illumination	Led illumination	Led illumination
Measurement Mode	Displacement /Thickness	Displacement /Thickness
Communication Control	Ethernet	Ethernet
Encoder	Incremental (item A/B)	Incremental (item A/B)
Compatibility	Compatible with all probe models	Compatible with all probe models
Power Supply/power Consumption	24V DC 2A	24V DC 2A
Working Temperature	5℃~40℃	5℃~40℃
Weight	2KG	2KG

Dynamic displacement fluctuations:



Without any moving average modification, the scanning stability is 4 times higher than conventional models, allowing full 100 nm resolution and accuracy.

Dynamic light intensity fluctuation:

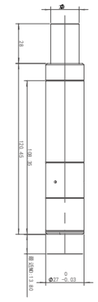


(This data is the amount of fluctuation in light intensity and displacement as the range probe moves across the glass flat crystal.)

Dynamic light intensity fluctuations are more than 10 times more stable than conventional models, and light intensity can be used as another dimension for judgement measurement.

PRODUCT DIMENSIONS

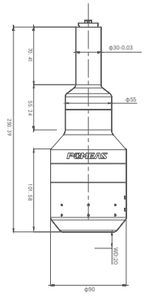
PMS-SFS-D8012



unit:mm

Nearest Measurement Distance: 13.8mm		
Measuring Range: 1mm		
Max. Light Angle: ±29.3°		
N.A.: 0.49		
Outer Diameter: 27mm		
Length: 148.45mm		
Maximum Linear Error: 0.02%F.S.		
Environment Humidity: 20 to 85% RH (no condensation)		
Scanning Frequency: 200/500/1000/2000 HZ (4 segments adjustable)		
Different Fiber Diameter Corresponds To The Min. Light Spot Diameter		
ϕ20μm	ϕ50μm	ϕ110μm
ϕ4μm	ϕ10μm	ϕ22μm

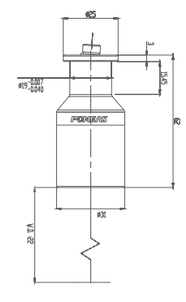
PMS-SFS-D8020



unit:mm

Nearest Measurement Distance: 20mm		
Measuring Range: 1.6mm		
Max. Light Angle: ±45°		
N.A.: 0.56		
Outer Diameter: ϕ90mm		
Length: 250.39mm		
Maximum Linear Error: 0.02%F.S.		
Environment Humidity: 20 to 85% RH (no condensation)		
Scanning Frequency: 200/500/1000/2000 HZ (4 segments adjustable)		
Different Fiber Diameter Corresponds To The Min. Light Spot Diameter		
ϕ20μm	ϕ50μm	ϕ110μm
ϕ2.9μm	ϕ7.3μm	ϕ16μm

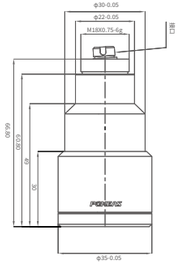
PMS-SFS-D8022



unit:mm

Nearest Measurement Distance: 22mm		
Measuring Range: 2mm		
Max. Light Angle: ±17°		
N.A.: 0.27		
Outer Diameter: ϕ31mm		
Length: 62mm		
Maximum Linear Error: 0.02%F.S.		
Environment Humidity: 20 to 85% RH (no condensation)		
Scanning Frequency: 200/500/1000/2000 HZ (4 segments adjustable)		
Different Fiber Diameter Corresponds To The Min. Light Spot Diameter		
ϕ20μm	ϕ50μm	ϕ110μm
ϕ15.5μm	ϕ38.8μm	ϕ85.4μm

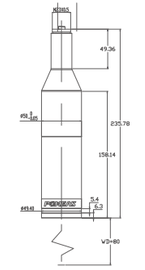
PMS-SFS-D8055



unit:mm

Nearest Measurement Distance: 55mm		
Measuring Range: 6mm		
Max. Light Angle: ±13.6°		
N.A.: 0.23		
Outer Diameter: ϕ35mm		
Length: 66.8mm		
Maximum Linear Error: 0.02%F.S.		
Environment Humidity: 20 to 85% RH (no condensation)		
Scanning Frequency: 200/500/1000/2000 HZ (4 segments adjustable)		
Different Fiber Diameter Corresponds To The Min. Light Spot Diameter		
ϕ20μm	ϕ50μm	ϕ110μm
ϕ17μm	ϕ42.6μm	ϕ93.7μm

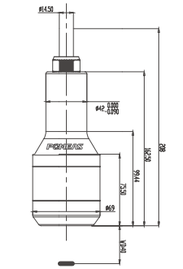
PMS-SFS-D8080



unit:mm

Nearest Measurement Distance: 80mm		
Measuring Range: 6mm		
Max. Light Angle: ±11°		
N.A.: 0.2		
Outer Diameter: ϕ50mm		
Length: 235.78mm		
Maximum Linear Error: 0.02%F.S.		
Environment Humidity: 20 to 85% RH (no condensation)		
Scanning Frequency: 200/500/1000/2000 HZ (4 segments adjustable)		
Different Fiber Diameter Corresponds To The Min. Light Spot Diameter		
ϕ20μm	ϕ50μm	ϕ110μm
ϕ14μm	ϕ35μm	ϕ77μm

PMS-SFS-D8040



unit:mm

Nearest Measurement Distance: 40mm		
Measuring Range: 7mm		
Max. Light Angle: ±20.2°		
N.A.: 0.31		
Outer Diameter: ϕ69mm		
Length: 162.5mm		
Maximum Linear Error: 0.02%F.S.		
Environment Humidity: 20 to 85% RH (no condensation)		
Scanning Frequency: 200/500/1000/2000 HZ (4 segments adjustable)		
Different Fiber Diameter Corresponds To The Min. Light Spot Diameter		
ϕ20μm	ϕ50μm	ϕ110μm
ϕ13.6μm	ϕ34μm	ϕ74.8μm

PMS-SFS-D8080K

Zoom CoaxialSpot Spectrum

4K Zoom Lens

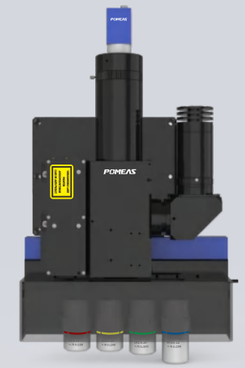
Magnification Range	0.68X~5X					
Working Distance (mm)	80					
Magnification Ratio	0.68X	1X	2.0X	3.0X	4.0X	5X
DOF(mm)*1	1.78	0.89	0.25	0.12	0.08	0.07
N.A.	0.033	0.045	0.08	0.11	0.12	0.12
F NO.	10.3	11	12.4	13.5	16.5	20.6
Resolution (um)	10.17	7.46	4.19	3.05	2.8	2.8
TV Distortion	< 0.02%	< 0.02%	< 0.02%	< 0.02%	< 0.02%	< 0.02%
FOV (mm) 1"	23.53X18.82X14.12	16X12.8X9.6	8X6.4X4.8	5.33X4.27X3.2	4X3.2X2.4	3.2X2.56X1.92
FOV (mm) 2/3"	16.18X12.94X9.71	11X8.8X6.6	5.5X4.4X3.3	3.67X2.93X2.2	2.75X2.2X1.65	2.2X1.76X1.32
FOV (mm) 1/2"	11.76X9.41X7.06	8X6.4X4.8	4X3.2X2.4	2.67X2.13X1.6	2X1.6X1.2	1.6X1.28X0.96
FOV (mm) 1/3"	8.82X7.06X5.29	6X4.8X3.6	3X2.4X1.8	2X1.6X1.2	1.5X1.2X0.9	1.2X0.96X0.72
Max. Image Plane	1"					
Total Length (mm)	328					
Zoom Mode	Manual /Electric					
Mount	C-Mount					

*1: Theoretical calculation value (calculated by taking the diameter of dispersion spot 0.04mm), the effect is better when taking 1/2 of its range in practical application.

PMS-SFS-D8080K Specification Sheet

Measuring Center Distance	80mm
Wavelength Range	500nm~650nm
Measuring Range	±3mm
Max. Light Angle	±11°
Light Point Diameter	φ35μm
Fiber Diameter	φ50μm
Fiber MA	0.14
Accuracy	1μm
Environment Humidity	20 to 85% RH (no condensation)
Scanning Frequency	200/500/1000/2000 HZ(4 segments adjustable)

*1: Measurement of the value of our standard workpiece (mirror body) by displacement mode



The "Focus X" system consists of

- Industrial camera
- Microscope tube module
- Laser sensor modules
- Objective focusing motion module
- Objective lens mounting module
- Apo objective lens

Parameter

Norm	Corresponding parameters with different objective lenses				
Magnification	2X(selectable)	5X	10X	20X	50X
DOF	91	14	3.5	1.6	0.9
Laser focusing frequency	5000Hz(Max)				
Laser focusing working Range (μm)	±7000	±3000	±1500	±600	±250
Accurate	1/4 Depth Of Field				
Laser autofocus cycle time	≤0.4s				
Operating temperature	5℃-50℃				
Z-axis travel	±15mm				

Objective Lens

Item	Product Code	Magnification	Numerical aperture	Working distance (mm)	Focal length (mm)	Resolution (μm)	Depth of field (μm)	Focal length of lens tube (mm)	Maximum image field of view (mm)
Conventional objective lens (image 16mm)	PMS-MPO2	2X	0.055	34	100	5	91	180	8.89
	PMS-MPO5	5X	0.14	35	40	2	14		3.56
	PMS-MPO10	10X	0.28	34	20	1	3.5		1.78
	PMS-MPO20	20X	0.42	20	10	0.7	1.6		0.89
	PMS-MPO50	50X	0.55	13	4	0.5	0.9		0.36
Large field of view objective lens (image 40mm)	PMS-MPO2-J	2X	0.07	32	100	4	56	200	20.00
	PMS-MPO5-J	5X	0.15	36	40	1.8	12		8.00
	PMS-MPO10-J	10X	0.28	32	20	1	3.5		4.00
	PMS-MPO20-J	20X	0.42	20	10	0.7	1.6		2.00

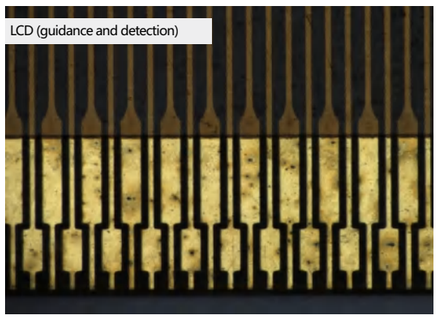
Objective Switcher Parameter List		
Norm	Carousel type objective switcher	In-line objective switcher
Number of supported objective lenses	4-hole/5-hole	
Driving method	Stepper motor	Linear motors
Objective lens switching time	<3μm	<0.5μm
Repeatable positioning accuracy of single hole	<10μm	<1μm
Positioning of different holes with optical axis deviation	<2s	<1.5s
Control method	RS232 communication control	

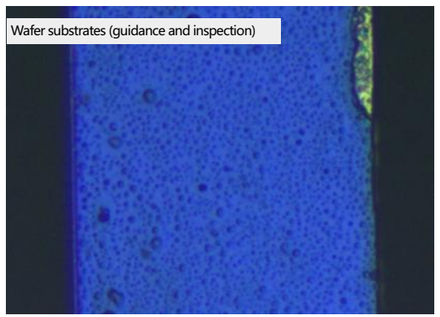
Application Industries

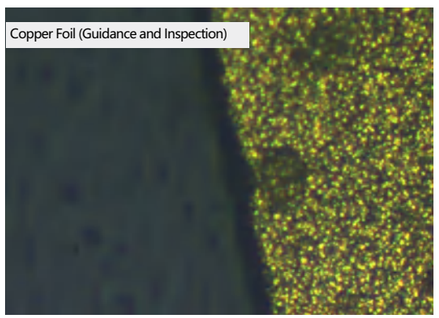
- Mobile Phone, Tablet, Computer And Other Metal Chassis Machine Processing Manufacturing Industry;
- Pcb Boards, Connectors, Ic Chips And Other Electronic Industries;
- Panel, Glass, Tempered Film And Other Industries;
- Emiconductor Wafer, Green Energy, Photovoltaic And Other Industries.

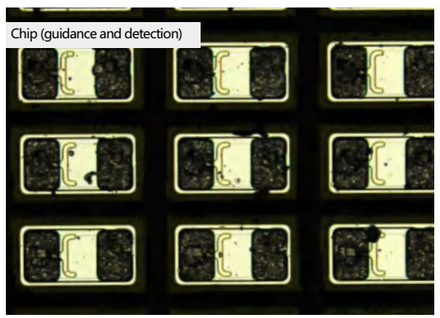
Application Features

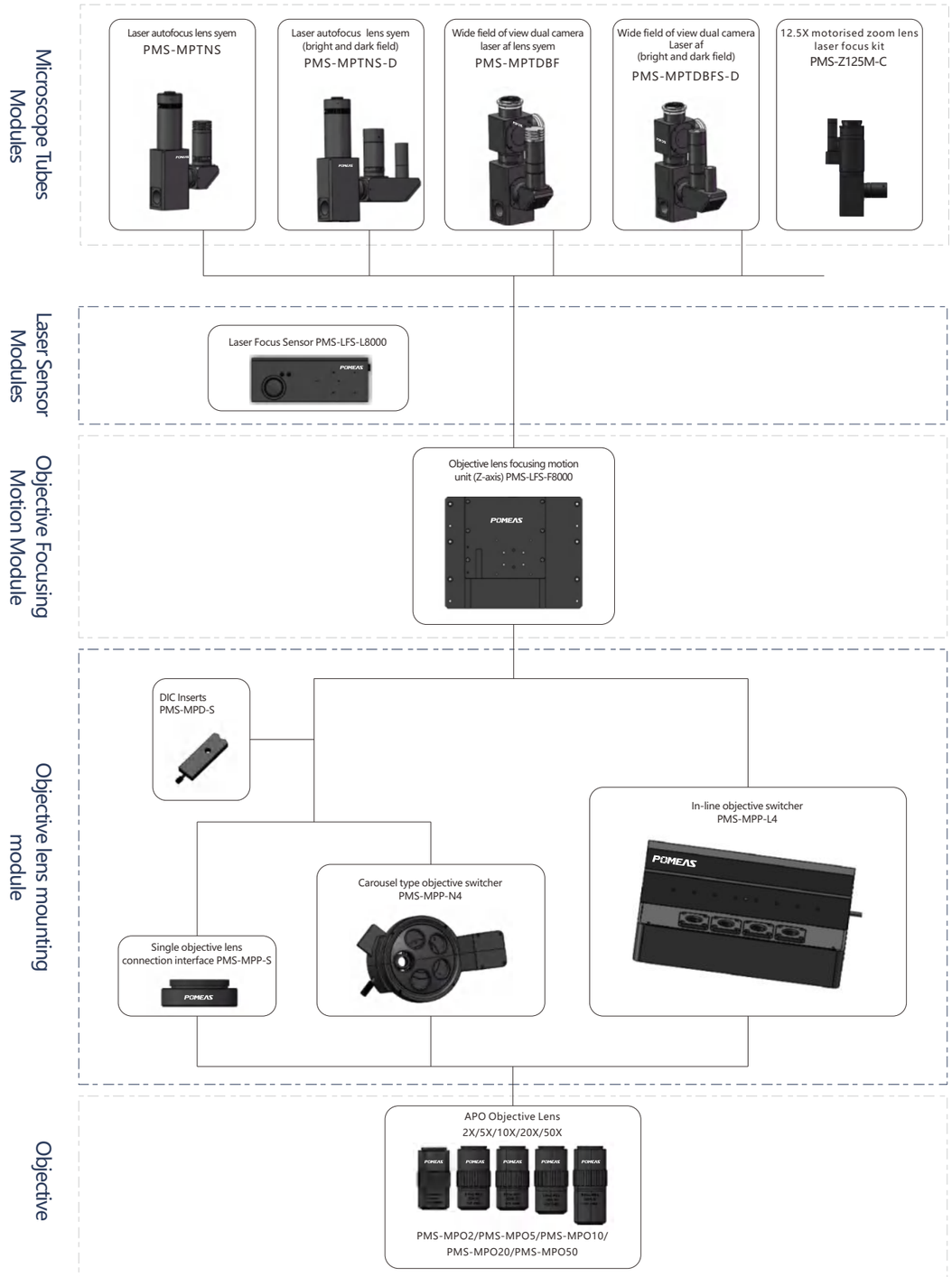
- Stable measurement of all kinds of materials, such as metal/ceramics/mirror/glass;
- Suitable for all kinds of workpiece shape (including deep holes/bevelled surfaces/curved surfaces), such as height/segment difference/thickness/flatness/profile measurement;
- Can be used under severe operating conditions such as high temperature and high pressure;
- The probe is lightweight and easy to integrate into automated measurement applications in a variety of industries.

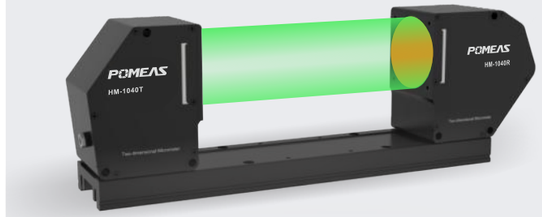






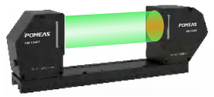




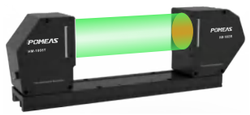


TELECENTRIC MEASUREMENT SYSTEM | HM-Series

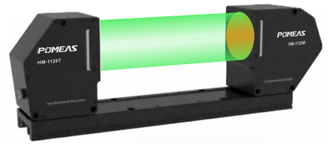
Silhouette-based analysis for guaranteed accuracy



Standard Model	HM-1040
Measuring range	φ40mm
Repeatability	±0.08μm
Measuring position accuracy	±1.0μm



Wide-field model	HM-1065
Measuring range	φ65mm
Repeatability	±0.1μm
Measuring position accuracy	±1.2μm



Ultra-wide-field model	HM-1120
Measuring range	φ120mm
Repeatability	±0.2μm
Measuring position accuracy	±2.5μm

Product Parameter					
Model			HM-1040	HM-1065	HM-1120
Transmitter/receiver Distance			180mm	270mm	436.7mm
Measurement Range	Field Of View	High-accuracy Measurement Area	φ26mm	φ40mm	φ60mm
		Measurement Area	φ40	φ65	φ124
	Depth Of Field	High-accuracy Measurement Area	10mm	20mm	20mm
		Measurement Area	20mm	30mm	40mm
Exposure Time			35/70/150μs (3 adjustable stages)		
Imaging Time (trigger Interval)			Approx. 34ms (when both the vertical and horizontal dimensions of the measurement range are Full) Approx. 5ms (when both the vertical and horizontal dimensions of the measurement range are 1/4)		
Light Source			InGaN Green LEDs		
Measurement position accuracy *1	High-accuracy measurement area		±1 μm	±1 .2μm	±2.5μm
	Measurement Area		±2 μm	±2 μm	±3.5 μm
Repeatability *2			±0.08 μm	±0.08 μm	±0.2 μm
Environmental Resistance	Enclosure rating*3		Ip64		
	Operating ambient temperature		0to +45° C		
	Operating ambient humidity		Below 85%RH (non-condensing)		
Materia			Aluminium	Aluminium	Aluminium
Weight	Transmitter		approx. 620 g	approx. 1300 g	approx. 5900 g
	Receiver		approx. 890 g	approx. 1900 g	approx. 7900 g
	Base		approx. 670 g	approx. 1500 g	approx. 4300 g

Spectral Focus Thickness Measurement Programme

Accurate and efficient non-contact thickness measurement

PRODUCT ADVANTAGE

- Stable measurement of all kinds of materials, such as metal / ceramic / mirror / glass, etc.;
- Can be used under severe operating conditions such as high temperature and high pressure;
- The compact size of the probe makes it easy to integrate into automated measurement applications across a wide range of industries.

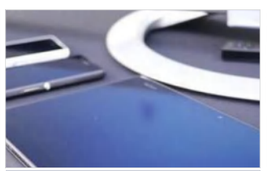
AREAS OF APPLICATION

- Metal chassis machining manufacturing industry such as mobile phones/tablets/computers;
- PCB board/connector/IC chip and other electronic industries;
- Panel / glass / tempered film and other industries;
- Semiconductor wafer/new energy/photovoltaic and other industries.

Product Parameter		
Model	PMS-STM22D	PMS-STM55D
Unilateral working distance	22mm	55mm
Alignment Thickness Measurement Range	1mm	1.5mm
accurate	1μm	5μm
sampling frequency	200~2000 Point/sec	
Power Supply/Power Consumption	24V DC2A	
operating temperature	5~40°	

PRODUCT CASES

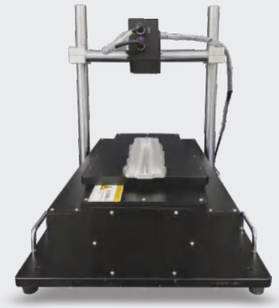
Healthcare Industry



Semiconductor Industry

Mobile Phone Industry

Electronics Industry



Line Laser Displacement Sensing Measurement Solutions

Rapid line-scan dimensional profiling

Model			MHLL-02020 020×020	MHLL-06040 060×040	MHLL-15580 155×080	MHLL-15090 150×090	MHLL-220120 220×120	MHLL-280140 280×140	MHLL-570250 570×250
Mounting Distance (mm)			20	60	155	150	220	280	570
Measurement Range	Z-axis (height) (mm)		± 2.3 (F.S.= 4.6)	± 6.1 (F.S.= 12.2)	± 15 (F.S.= 30)	± 14 (F.S.= 28)	± 21 (F.S.= 42)	± 30 (F.S.= 60)	± 85 (F.S.= 170)
	X-axis (width) (mm)	Proximal	19	39	74	85	116	129	225
		Base Line	20	40	78	90	120	140	250
		Far	20	40	78	90	120	140	250
Sampling Frequency	Full field of view scanning frame rate		1000 frames/s						
	ROI Frame Rate		Up to 4000 frames/s						
Contour data points*1			3840						
biometrics	Z-axis (height)*2		±0.1% F.S.						
Repeatability*3	Z-axis (height) (um)*4		0.4	0.6	3	3	4	7	20
Resolution	Z-axis (height) (um)		0.16	0.43	0.9	0.9	1.3	2	5.5
Contour Data Interval	X-axis (width) (um)		5.2	10.5	20.5	23.5	31.5	36.5	66
light source	Typology		Blue Semiconductor Laser					Red Semiconductor Laser	
	Wavelength		405 nm (blue violet)					650 nm (red)	
	Laser Classification		Class 2m/2 Laser Products						
Data Interface			Gige Gigabit Ethernet						
Temperature Characteristics*5			0.01% F.s./℃						
Environmental Resistance	Shell protection class		Ip67						
	Environmental Temperature		0 To +50°c						
	Environmental humidity		20 To 85 Per Cent (non-condensing)						
	Vibratory		10 - 57 Hz Dual Amplitude 1.5 Mm, 2 Hours Each In X, Y And Z Directions						
	Impact Resistance		15g Semi-sinusoidal Shock With A Period Of 6ms, Positive And Negative In The X, Y And Z Directions.						
Input Voltage			+24 V						
Makings			Aluminium						
Weights			Reduce 800g	Reduce 950g	Reduce 950g	Reduce1200g	Reduce1300g	Reduce1200g	Reduce1300g
Dimensions (mm)			165.5 ×105.5 ×50	180 × 100 ×57	193 × 105 ×57	255.5 ×110.5 ×57	284.5 ×110.5 ×57	255 × 110 ×57	284 × 105 ×57

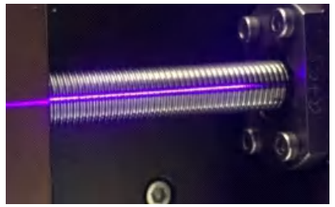
PRODUCT ADVANTAGE

- High-speed, high-precision, non-contact, easy to install, simultaneous measurement of a number of dimensions on a contour.
- Realise the measurement of any contour line dimension of the object, such as height difference, width, angle, radius, etc. It can also realise the defect detection, appearance dimension scanning, surface feature tracking and other functions.

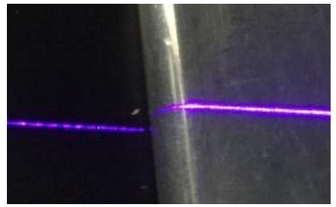
AREAS OF APPLICATION

- Automotive industry, for example: automotive assembly position, gap detection, automotive handle surface detection, tyre detection, complex contour size detection, etc.;
- Mobile phone industry, for example: mobile phone panel assembly alignment, mobile phone component size detection, mobile phone screen thickness detection, mobile phone indicates curved surface measurement;
- Semiconductor industry, for example: PCB board inspection, electronic components height, width, angle detection, IC pin spacing and skew measurement;
- Hardware industry, for example: gear jamming alignment detection, gear tooth pitch detection, bearing height detection, etc..

PRODUCT CASES

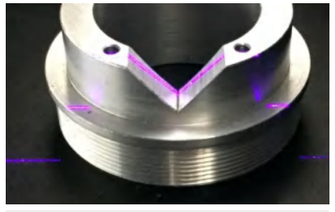


Screw Tooth Pitch Measurement



Surface Curvature Measurement

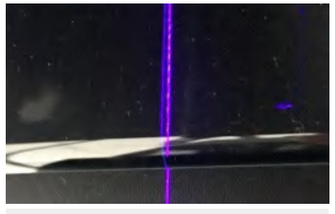
Measurement Of Complex Contour Dimensions



Height, Width, Angle Measurements

Electronic Device Pin Spacing And Bend Measurement

Assembly Dimension Measurement



Curved Glass Measurement

Hardware Mould Measurement

3D Scanning Measurement Programme

Non-contact surface array fast scanning measurement

PRODUCT ADVANTAGE

- High-precision non-contact measurement: no damage to the product and high measurement accuracy;
- High-speed scanning: the fastest scanning time is only 4s, which can be analysed to produce all the corresponding size reports;
- Powerful data analysis capability: with 2D point fitting, 3D contour analysis, 3D cross-section analysis, 3D auxiliary verification and other comprehensive analysis and processing functions.

AREAS OF APPLICATION

- Dimensional measurement: quickly obtain 2D and 3D dimensional reports of the workpieces to be measured, especially for the dimensional measurement of large-size and complex shaped workpieces with unique advantages;
- Reverse engineering: the 3D model of the sample to be measured can be obtained quickly, and prototype samples can be made quickly for verification through rapid prototyping technology, which greatly shortens the development cycle;
- Defect analysis: by comparing the workpiece measurement data with the design data, it can quickly locate and correct the defective parts applicable to 3D dimension measurement, 3D surface profile comparison, reverse engineering and other projects, and can be equipped with moving parts for automated measurement.

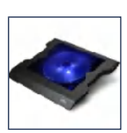
Code	PMS-SCH38	PMS-SCH60	PMS-SCH170	PMS-SCH320
Probe Size (mm)	260x205x76	260x205x76	260x205x76	260x205x76
Light Source	LED blue light	LED blue light	LED blue light	LED blue light
Maximum Scanning Time	4S	4S	4S	4S
Measuring Accuracy (mm)	0.005	0.005	0.01	0.02
Measuring Range(mm)	38x28.5	60x45	170x130	320x240
Measuring Distance (mm)	280	280	280	280
Automation Functioning	Software comes with	Software comes with	Software comes with	Software comes with
Automation Spindle	Two Axes (X, Y)	Two Axes (X, Y)	Two Axes (X, Y)	Two Axes (X, Y)
Working Voltage	210-230VAC	210-230VAC	210-230VAC	210-230VAC
Signal Cable Set	5m	5m	5m	5m
Weight (kg)	32	32	32	32
Operating Temperature Range	23°C-40°C	23°C-40°C	23°C-40°C	23°C-40°C

PRODUCT CASES

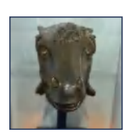

3D printing


Automobile Industry


Electronic Product


Wind Power Industry

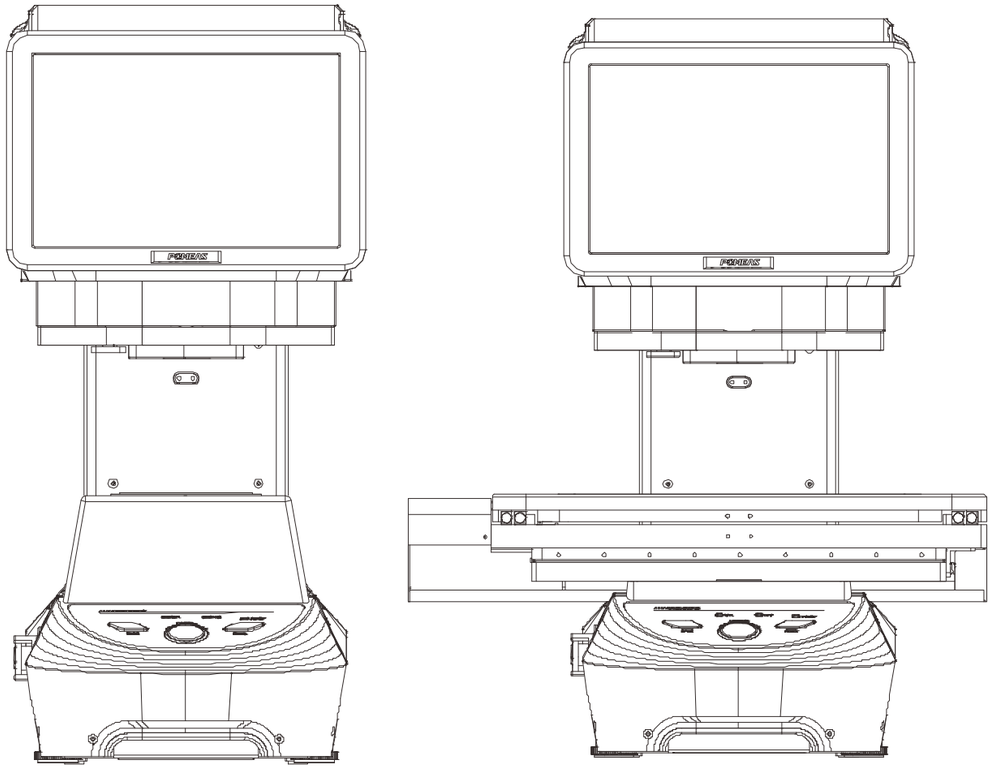

Medical Simulation


Heritage Conservation

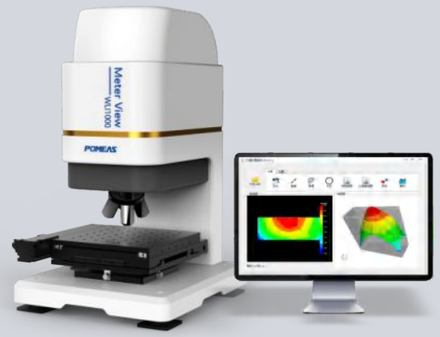

Building Furniture Manufacturing

MEASURING SYSTEM

Module: product barcode scanning / dimensional measurement / uploading MES system / sample classification;
Functions: dimensional measurement length / width / diameter / angle;
Segment difference/height/shape tolerance/profile/roughness, etc.;
Application: 3C/new energy/chip/5G etc.;
Application: glass/hardware/plastic parts/electronic parts, etc..



The multi-sensor measurement system consists of : MetX, IMAGE system and 3D morphology analysis system.



3D White Light Interference Profilers Meter View Series

Graphical measurement and analysis of micro- and nanoscale 3D face shapes

Compact design for laboratory and field applications;

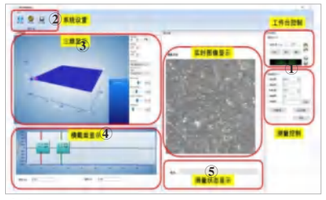
Product Advantages

- Roughness measurements micro profile of surface features;
- Measurement of contour dimensions such as step height and angle;
- Automated auxiliary functions such as auto-focus, auto-stripe finding and auto-brightness adjustment;
- Data processing functions such as levelling, image retouching, denoising and filtering, and area extraction;
- Auxiliary analysis functions such as comparison analysis and multi-file analysis.

Movable work stage; Real-time selection analysis and 3D measurement result of cross section

Measurement Software

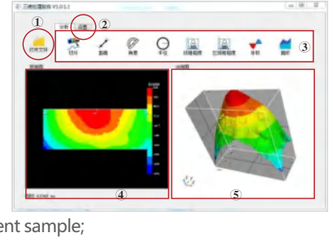
① Workpiece table control and measurement control;
② System settings such as network, camera light source, and scanning parameters;
③ Three-dimensional results are shown;
④ Cross-section selection and analysis;
⑤ Measurement images are displayed in real time.



The measurement and analysis software nterface is intuitive and easy to use with powerful analysis functions;

Supporting Analysis Software

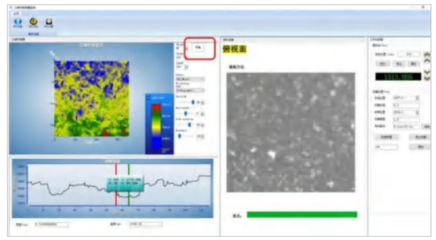
① Import measurement software data/ external measurement data;
② Customise colours, lighting, textures and more;
③ **2D Contour Measurement:**
Thin Section Of Specimen For Examination
Distance Measurement
Angular Measurement
Radius Measurement
Line Roughness Measurement
3D morphometry:
Surface Roughness Measurement
Volume measurement
Area measurement



④ Top view of the surface of the measurement sample;
⑤ 3D reconstruction view of the surface topography of the measurement sample.

PRODUCT FEATURES

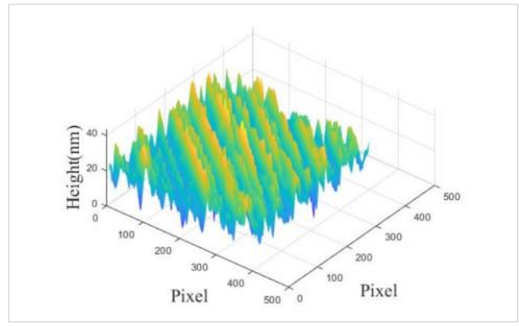
Measurement

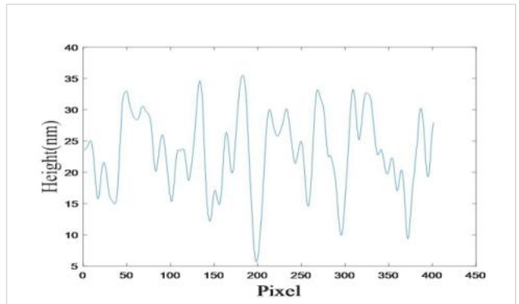


Non-contact measurement: non-destructive acquisition of surface topography information.
High accuracy: Roughness/profile information can be measured with an accuracy of 1nm or more.
High accuracy: RMS repeatability up to 0.1nm.
Fast measurement: fast focusing, fast scanning, fast reconstruction processing.
Stability: good anti-vibration and anti-interference ability, adapt to the complex working environment.

Analysis

Data visualisation: Intuitive data visualisation is provided for direct observation of the interference pattern and measurement results. It also supports data export to common file formats for further data analysis;
Powerful data analysis: Image processing algorithms and advanced analysis software allow users to perform phase extraction, surface topology analysis, film thickness calculations and other analyses for more detailed test results and comprehensive characterisation.



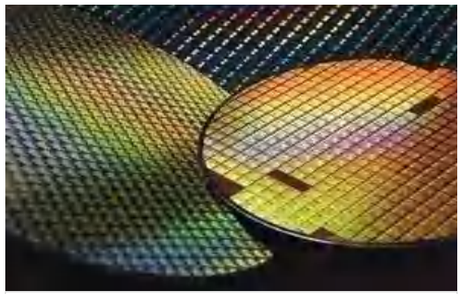


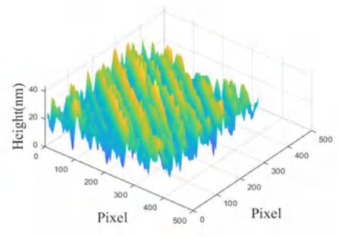
Service

After-sales service: Professional after-sales team provides operation and use training, quick response;
Customised services: based on customer demand, according to the customer's different application scenarios for customised development.

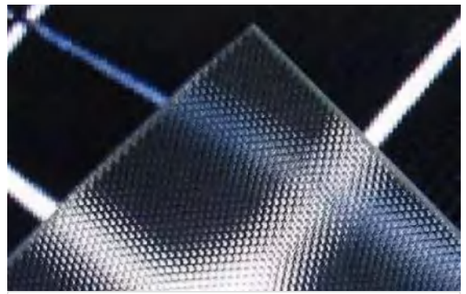
PRODUCT CASES

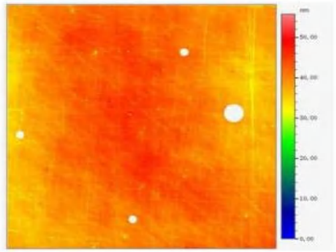
Optical Manufacturing :
Surface condition, thickness variation, shape accuracy .....



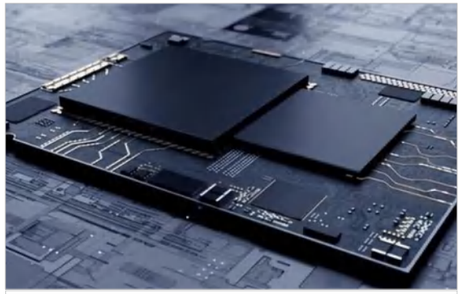


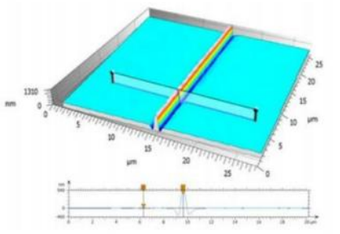
Materials Science :
Thin film thickness, optical constants, surface flatness .....



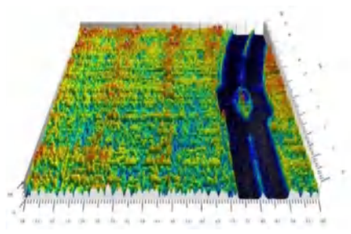


Electronics Industry :
Micro devices, circuit boards, semiconductor manufacturing.





Mechanical Manufacturing :
Contours, axial curvature, surface flatness .....



PRODUCT PARAMETER

Product Parameter		
Model Number		WLI 1000
Scanning Range		15mm
Scanning Speed		10μm/s
Interference Objective		Standard: 10x Optional: 2.5x, 5x, 20x, 50x, 100x
Optical Zoom		1mm X 1mm Standard field of view (10X objective + 0.5X imaging module)
XY displacement table	Dimensions	300X300mm
	Travelling range	100X100mm
	Control mode	Electric / Manual
	Adjustment angle	±5°
Z-axis focus	Auto Focus	YES
	Stroke	100mm
	Control mode	electric powered
DUT Reflectivity		/
Row Profile Repeatability STR		/
Roughness RMS repeatability		0.01nm
Step measurement repeatability		≤0.1% 1σ
Z-direction resolution		0.1nm

Standard Configuration (customisable)	
Camera	Black And White Camera With Large Target Surface X 1
Imaging Modules	Imaging Magnification 1x
Interference Objectives	10x Interference Objective
Light Source Systems	White Led
Nano Scanning Stages	1pc
Electronic Control Chassis	Including Switching Power Supply, Serial Port, 15-core Interface, Control Interface 1, Control Interface 2
Measurement Software	1 Set
Analysis Software	1 Set

Optional Configurations	
Scanning stroke	1mm-15mm
Lens Magnification	2.5x、5x、10x、20x、50x、100x

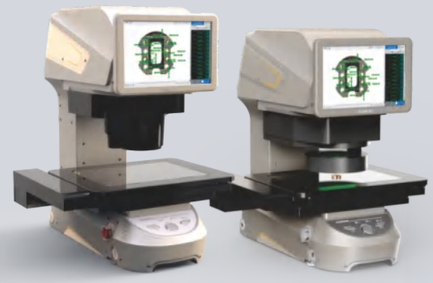


Image Dimension Measurement System
IMAGE Series

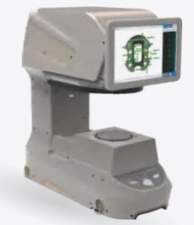
SPEEDY · SIMPLER · ACCURATE

Product Parameter Table

Equipment Model				IMAGE 3	IMAGE 3 PLUS	IMAGE 3 PRO	IMAGE 3 PRO-H	IMAGE 3 MAX	IMAGE 3 MAX 2
Imaging Measurement	Measuring Range (mm)	High precision measurement mode(X*Y*Z)		26*18	126*117*75	226*117*75	226*117*75	205*104*75	206*106*75
		Wide field of view measurement mode(X*Y*Z)		φ100	200*200*75	300*200*75	300*200*75	223*118*75	225*125*75
	Lens field of view (mm)	High-precision measurement mode		26×18				6.4×4.8	6x6
		Wide field of view measurement mode		Φ100				18.8×14.1	25x25
	Repeat Accuracy (μm)	High-precision measurement mode		±2				±1	±0.5
		Wide field of view measurement mode		±4				±1.5	±1
	Measurement accuracy(μm)	High-precision measurement mode	Non-stiching	±2				±1	±1
			Stitching	/	±(2+L/50)			±(1.5+L/50)	±1
		Wide field of view measurement mode	Non-stiching	±4				±1.5	±1.5
			Stitching	/	±(4+L/50)			±(2+L/50)	±1.5
Height measurement	Repeatability (μm)			/			±2		
	Measurement Accuracy (μm)						±(3.5+L/50)		
	Working Distance(mm)						55		
	Range (mm)						±3		
Optical System	Camera			1" 20 Megapixel B/W CMOS Camera*2				1" 12-megapixel black-and-white CMOS camera	
	Leny			Double-magnification bilateral telecentric lens				4K zoom lens	Double-magnification bilateral telecentric lens
	Surface Light			Liftable quad white ring light + green gap light source					
	Back Light			Green parallel bottom light source					
	Coaxial Light Optical			Built-in coaxial light source (optional)				Built-in coaxial light source	
Height sensors	Spectral Confocal Probes			/			8055		8055(optional)
	Spectral Measurement Range (mm)						122×100×75	145×95×75	135×100×75
	Measurement Angle						±13.6°		
	Spot Size (μm)						17		
	Linear Accuracy						0.02%F.S.		
Table Load(kg)				5					
Software				AI-Image (self-developed)					
Supply Power Supply				220V+20%, 50Hz					
Working Environment				Temperature: 20±3°C; Humidity: 30-80% (no condensation); Vibration: <0.002g 15Hz					
Minimum Display Unit (μm)				0.1					
Instrument Weight (kg)				33	45	50	45	33	45
Overall Dimension(l*w*h)(mm)				625*309*650	625*402*650	625*510*650	625*510*650	625*510*695	625*510*650

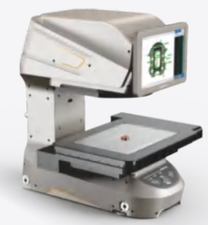
SYSTEM STRUCTURE

IMAGE3



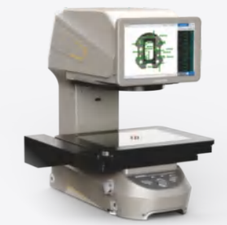
Φ100mm moving platform with variable lighting unit

IMAGE3 PLUS



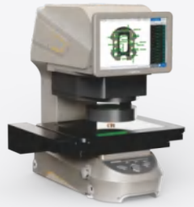
200mm x 200mm mobile platform with variable lighting unit

IMAGE3 PRO



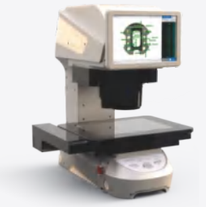
300mm x 200mm mobile platform with variable lighting unit

IMAGE3 PRO-H



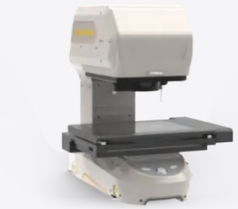
300mm x 200mm moving platform with variable illumination unit and 8055-point spectrum

IMAGE3 MAX



300mm x 200mm moving platform with variable illumination unit and 8055-point spectrum

IMAGE3 MAX2



Wide field of view measuring range 225*125*75mm
Equipped with Promise 8055 spectral probe

C1/C2

List Of Options

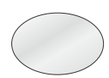
Exterior Lighting

IMAGE 3 External Coaxial Light

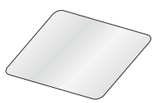
IMAGE Rapid Measurement System Measurement Software

Profice Comparison Module MetX Multi-Sensor Measurement System

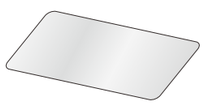
Stage Glass



Φ113.6*6mm Version A Stage Glass



220.5*237.5*8mm Version B Stage Glass



320.5*237.5*8mm Version C Stage Glass

DIMENSIONS

IMAGE3

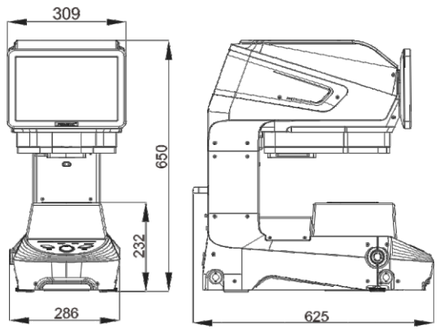


IMAGE3 PLUS

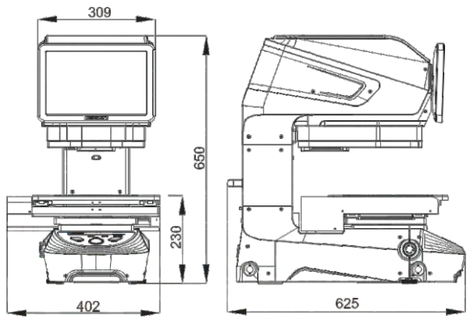


IMAGE3 PRO

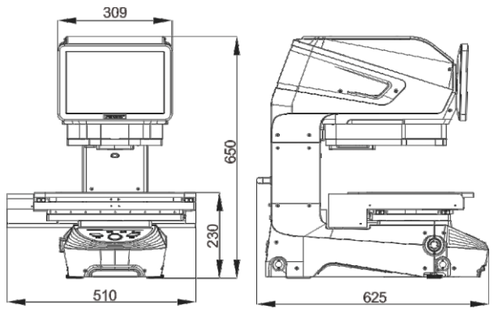


IMAGE3 PRO-H

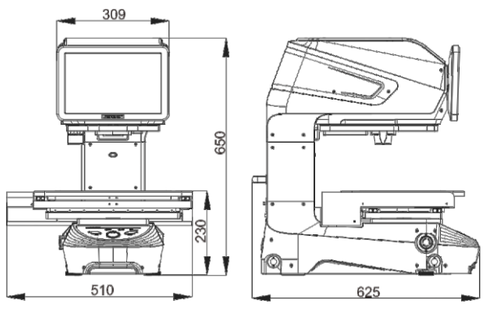


IMAGE3 MAX

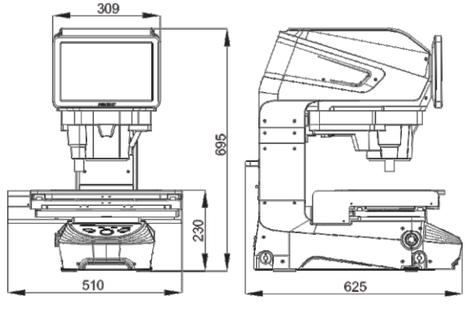
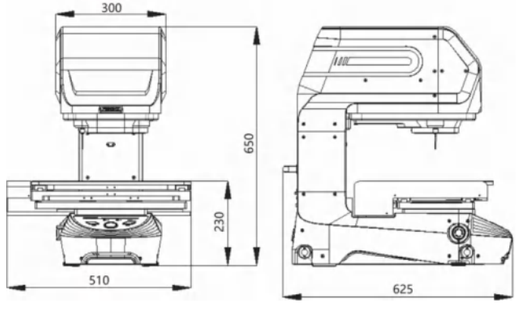
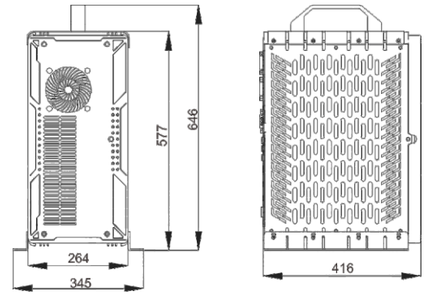


IMAGE3 MAX2



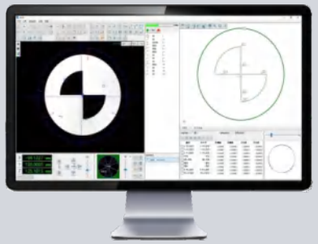
DIMENSIONS

C1/C2



PRODUCT CASES

Screws, Bolts	Machined Parts
	



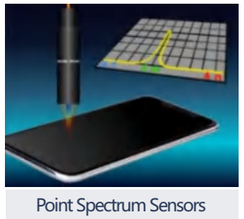
Met X Multi Sensor Measurement System

Multi-sensor omni-directional composite measurement

POMEAS Sensors All Support Flying Shoot Technology

Image Sensor

Line Laser Sensors

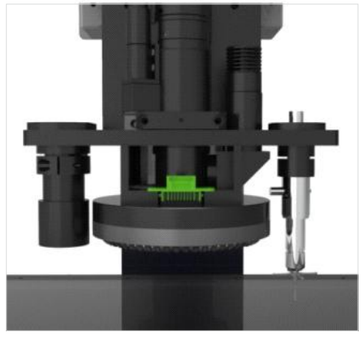


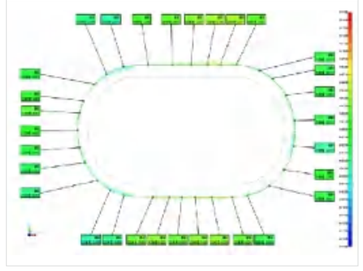
Point Spectrum Sensors

Barcode Sensors

PRODUCT FEATURES

- Self-developed vision and motion control module, can be quickly built to any motion measurement platform, to achieve fast and accurate measurement;
- Support multi-axis composite measurement, which can simultaneously perform vision and sensor fly-short measurement in multiple directions;
- Can be matched with multiple types of lens sets, according to the actual use of the scene for rapid component measurement;
- Meet the connection of multiple types of sensors to quickly respond to the inspection needs of different fields and materials;
- OS/APP architecture, compatible and flexible switching of size measurement, sensor measurement, Profile comparison, presence or absence detection and other functional modules;
- Equipped with Profile measurement function, it can comfortably cope with the 2D/3D contour inspection requirements of irregular products.

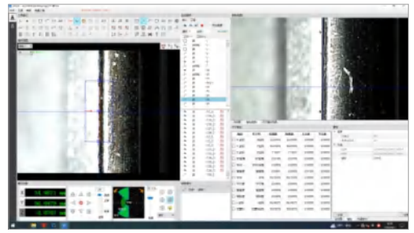




FUNCTION INTRODUCTION

Dual Station Solutions

Supports dual-station mode for more efficient multi-station measurements.

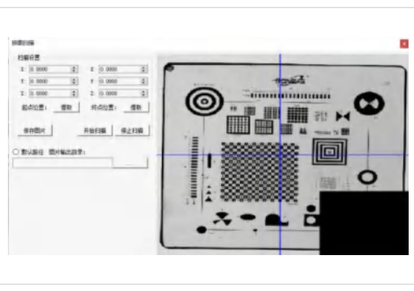


Grid Measurement

Tools for of fast product programming and measurement;

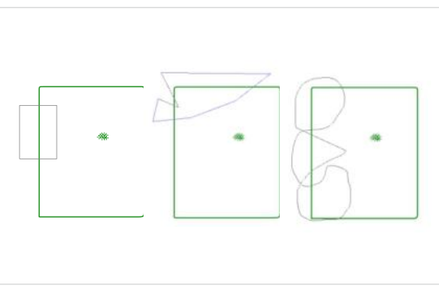
Image Stitching

Stitching images from multiple fields of view onto a single picture ;

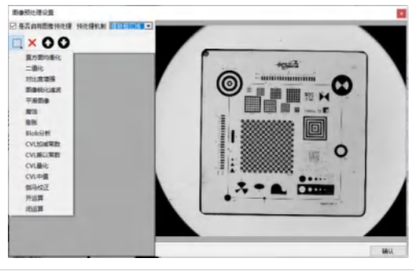


Multiple Point Cloud 3d Interaction Methods

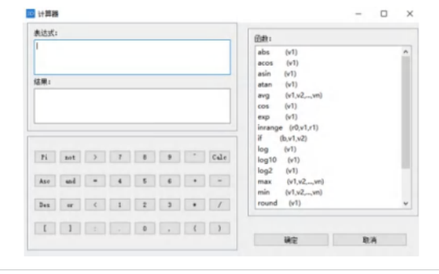
Box selection, polylines, free curves, etc., covering all 3D Interaction needs.



Multiple Image Pre-processing Tools



Calculator Tool With Multiple Function



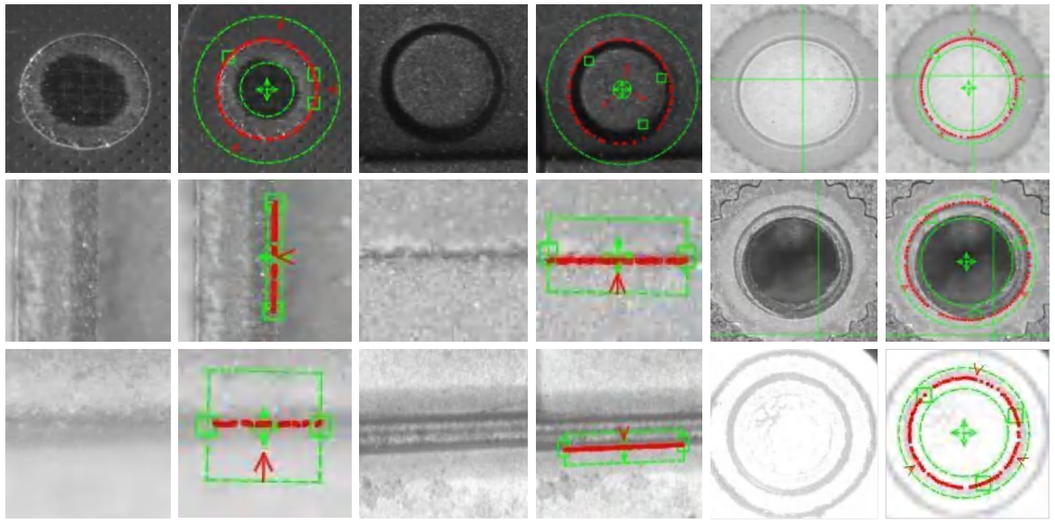
MetX M Multi Sensor Measurement System

Semi-Automatic Multi-Sensor Rapid Measurement

Function	
Basic Measurement Functions	1. Geometric: points, lines, circles (maximum, minimum and average), arcs, spline curves, ellipses, rectangles, quadrilaterals, slots, R-angles, rings, spacings, distances, clusters of points, etc..
	2. Construct: centre point, extreme point, end point, intersection point, two-point line, parallel line, perpendicular line, tangent line, bisector, centre line, merge, contour division, radius circle, three-lane tangent circle, two-lane radius tangent circle, and so on.
	3. Form and position tolerance: straightness, roundness, position, parallelism, perpendicularity, inclination, concentricity.

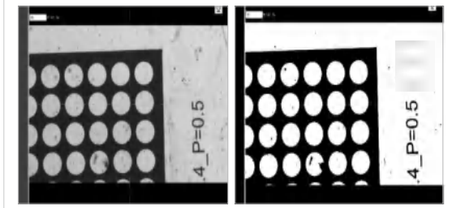
Fully Automatic Edge Finding

Powerful surface light algorithms, fully automatic edge finding, accurate fitting elements, for complex edge features, provides a variety of edge finding aids, greatly improving work efficiency and reducing the difficulty of measurement;



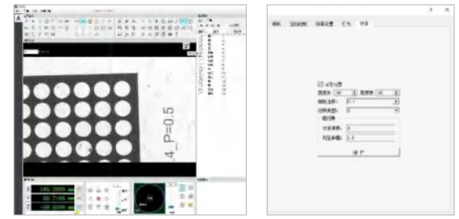
Automatic Dimming

The bottom light can be adjusted to the right state within 1s with one click, which improves the measurement efficiency.



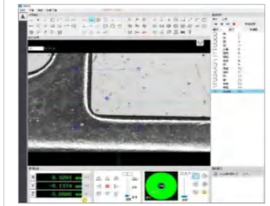
Autofocus

Enable when Z-axis is auto axis, one button can focus the feature within 2~5s under different magnification.



Feature Position

The product can be positioned on the feature and subsequently measured accurately no matter how the product is placed in the field of view.



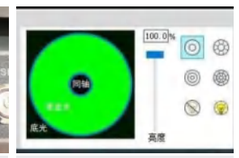
Elements Slideshow

Elements built after the programme has been run can be confirmed and details modified quickly and easily through the slide show function.

Adjustment Of Light Source

Light source adjustment can be controlled by knob and software, convenient and quick.

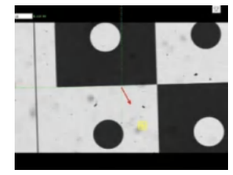
knob dimmer



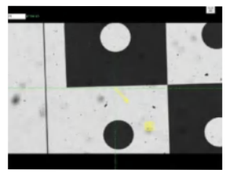
Software dimming

Arrow Guidance

The image arrow guide can be used to find the exact position of the workpiece to be measured, and when it reaches the approximate position, it automatically searches for the edge, and the moving error arrow will be displayed in red;



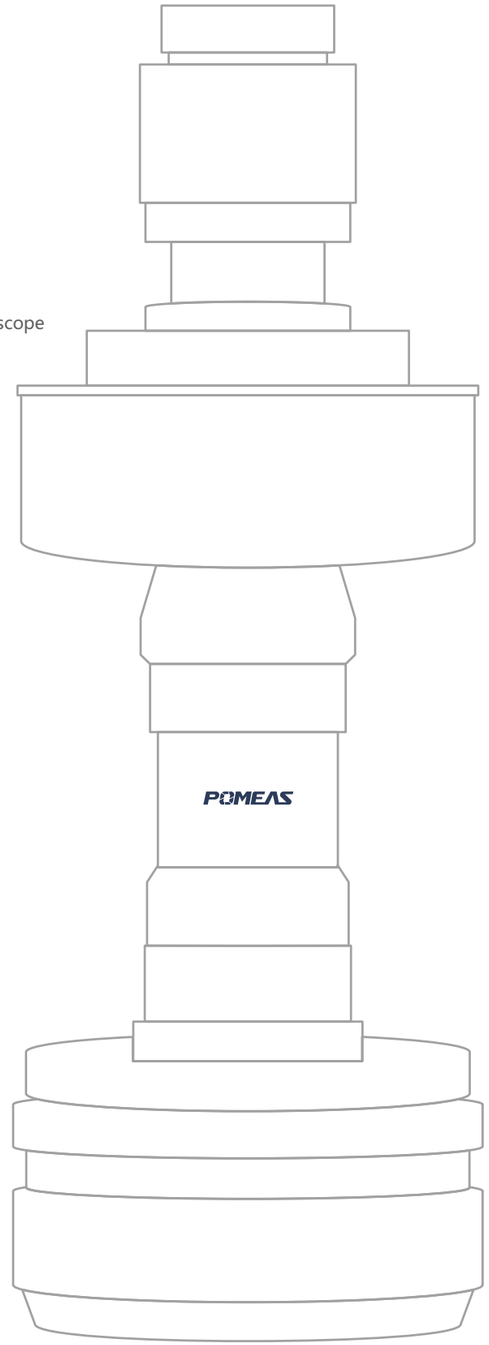
movement error



move correctly

MICROSCOPE SERIES

- The microscope range includes :
- Auto Focus Video Microscope
- Metallurgical MicroscopeSubstantial MicroscopeStereo Microscope
- 3D Microscope
- DIC Video Microscope Module



Metallographic Microscope MM Series

High-precision and high-efficiency metallurgical microscope integrating software, optical, mechanical and electrical components.

Metallographic microscope parameters	
Code	Description
MM-CX40M	Bright field, polarised; infinity long working distance flat field achromatic metallurgical objective (5X, 10X20X, 50X); swing-out achromatic spotting scope N.A0.9;
MM-MX40R	Infinitely long chromatic aberration optical system; bright field, dark field, polarisation, DIC; infinitely long working distance flat-field achromatic metallurgical objectives (5X-DIC, 10X-DIC, 20X-DIC, 50X);
MM-RX60M	Infinite Apochromatic Optical System; Bright Field, Dark Field, Polarisation, DIC; Bright and Dark Field Semi-Complex Achromatic Metallographic Objective Lenses (5X, 10X, 20X, 50X) Swing-out Achromatic Spotting Mirror N.A 0.9 Variable Aperture Diaphragm with Adjustable Centres;

Metallographic microscope parameters	
Optical System	Infinite Apochromatic Correction Optics
Observation Tube	30°tilt, orthoimage, infinity comparative chain tee observation tube, pupil distance adjustment :5mm~76mm, two spectral ratios binocular:trinocular =100:0 or 0:100
	30°tilt, inverted image, infinity comparative chain tee observation tube, pupil distance adjustment :50mm~76mm, three spectral ratios binocular:trinocular =100:0 or 20:80 or 0:100
Eye Pieces	High eye point large field flat field eyepiece PL10X25mm with adjustable dioptre
	High-eye-point, large-field flat-field eyepiece PL10X25mm with single-scaled crosshair dividing plate and adjustable visual field
	High eye point large field flat field eyepiece PL10X26.5mm with adjustable dioptre
	High-eye-point, large-field flat-field eyepiece PL10X26.5mm with single-scaled crosshair dividing plate and adjustable dioptre
Objective	Bright and dark field semi-complex achromatic metallographic objectives (5X, 10X, 20X50X, 100X)
	Brightfield semicomposite achromatic metallographic objective (5X, 10X, 20X, 50X, 100X)
Objective Lens Converter (with Dic Slot)	Light and Dark Field 5-Hole Converter, Light and Dark Field 6-Hole Converter
	Brightfield 6-Hole Converter, Brightfield 7-Hole Converter
Stage	The camera has a dual-purpose frame with a low hand coarse and fine co-axial focusing mechanism. Coarse adjustment stroke 25mm, fine adjustment accuracy 0.001mm, with preventing slipping of the adjustment of the elastic device and random upper limit device.Built-in 100-240V wide voltage system, dual power output, digital dimming, with light intensity setting and reset function, reflective/transmissive light switch, built-in transmitted light filter (LBD, ND6, ND25).
	Reflective frame with low hand coarse and fine co-axial focusing mechanism. 25mm coarse adjustment stroke, 0.001mm fine adjustment accuracy. Coarse adjustment stroke 25mm, fine adjustment accuracy 0.001mm, with preventing slippage of the adjustment of the elastic device and random upper limit device built-in 100-240V wide voltage system, using digital dimming, with light intensity setting and reset function.
Platform	Right-handed 4" mechanical stage with 105mm x 102mm travel, with Y-axis locking mechanism, with transmissive system light barrier, with glass carrier plate
Reflector Illuminator	Swing-out achromatic condenser (N.A.0.9)
Spotting Scope	Bright and dark field reflector illuminator with variable aperture diaphragm, field of view diaphragm, centre adjustable; with switch between bright and dark field illumination, with filter slot, with polariser/detector slot
Lamp Room	12V100W Halogen Chamber, Transmissive, Reflective Universal, Pre-centred
Other	Camera accessory :0.5X, C-type connector, focus adjustable
	Polarising Plate, Fixed Polarising Plate, 360 Rotating Polarising Plate
	DIC Differential Interference Components
	Interference filters for reflection: blue ⩽ 480nm, green: 520nm-570nm, red: 630nm-750nm, colour balance film (white light)
	Highly accurate micrometer with 0.01mm grid.

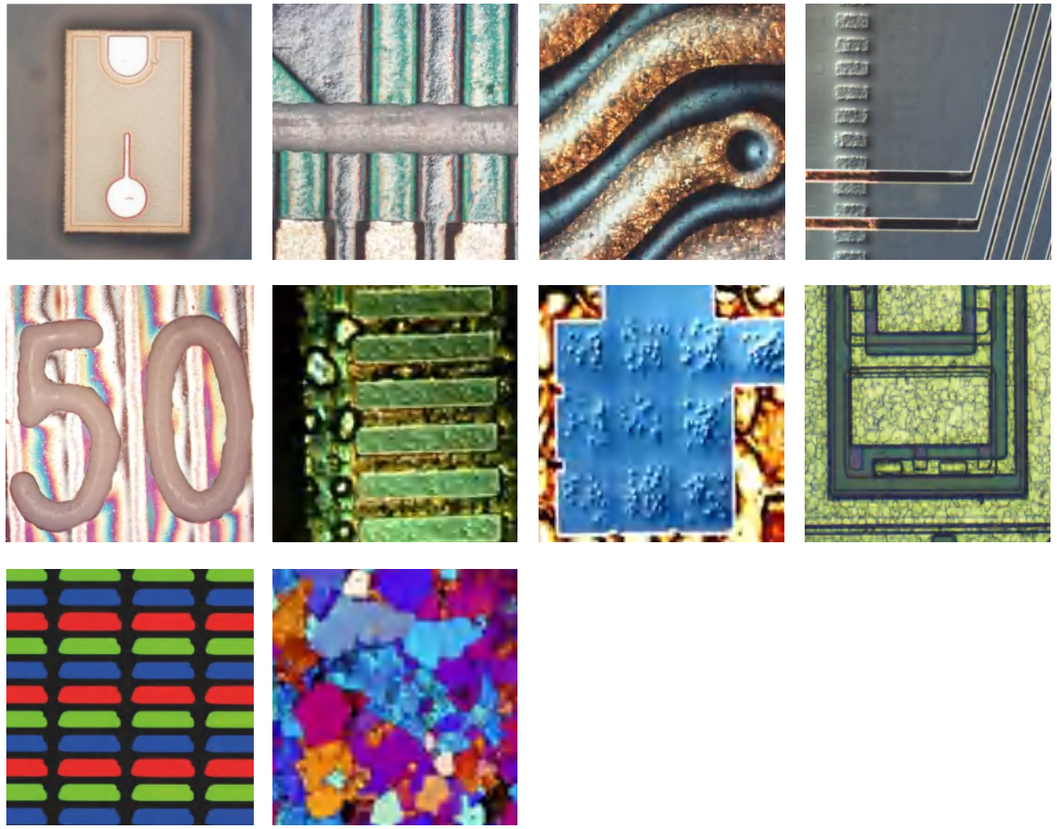
PRODUCT ADVANTAGES

- Newly adopting semi-complex cancellation technology, covering a variety of observation modes such as bright field, dark field, polarised light, differential interference, etc., providing you with efficient solutions;.
- Adopting the illumination system and optical system of research-grade microscope, with uniform illumination and clear imaging. New operating system mechanism with ergonomic design, minimising operator's fatigue.
- Modular components design, free combination of system functions, to meet the needs of the professional field of industrial inspection and metallographic analysis.
- Highly integrated software system, let you operate more comfortable.

APPLICATION FIELDS

Widely used in electronic components, precision moulds, precision tools, springs, plastics, rubber, oil seals and stop valves, camera parts, automotive parts, PCB processing and other fields.

PRODUCT CASES



Automatical Focus Video Microscope

Autofocus video microscope with measurementfunchien

Auto Focus Microscope			
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.<8.77um Max.< 3.94um	
	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	Supports USB memory stick storage	
Instrument	Optional Light	Ring light /Side lights /Bottom lights /Outside coaxial light	
	Optional Lens	Without /VVith magnification output	

PRODUCT ADVANTAGES

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.

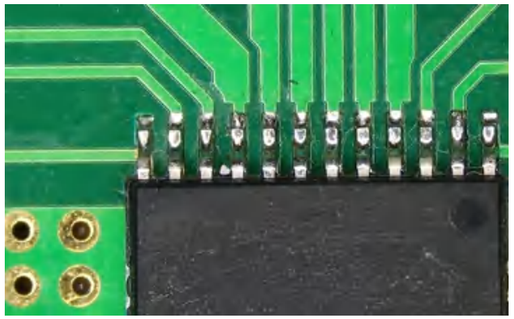
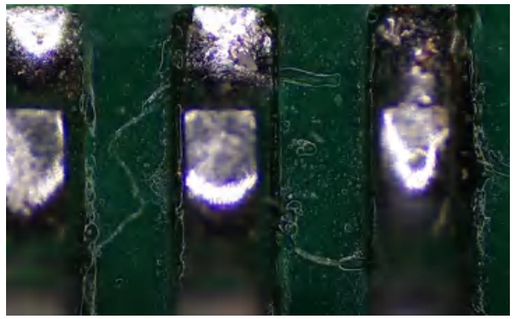
Microscope is with all in one mechanical structure, full self-developed optical system, light switch function, continuous zooming in/out, auto focusing function.

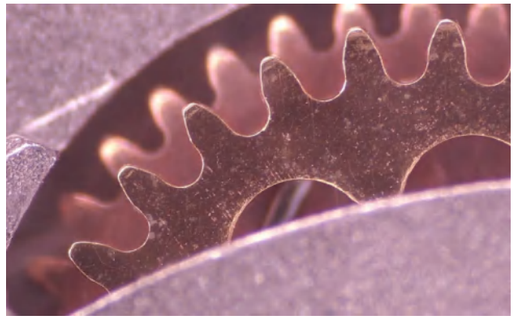
It will help you improve the quality control career.

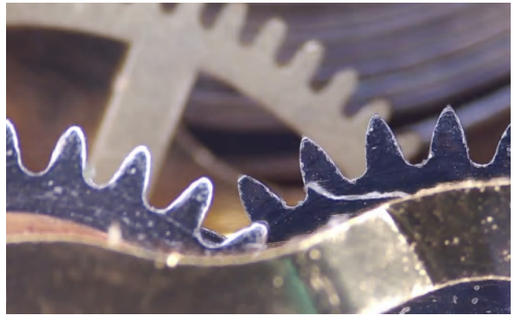
APPLICATION FIELDS

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

PRODUCT CASES





All-in-one Video Microscope

Integrated all-in-one design video microscope

Parameter

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)				10 inches LCD display, Metal Wire drawing(1280*800)
Stage		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°C~50°C	-10°C~50°C	-10°C~50°C	-10°C~50°C	-10°C~50°C

Objective Lens Parameter

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

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

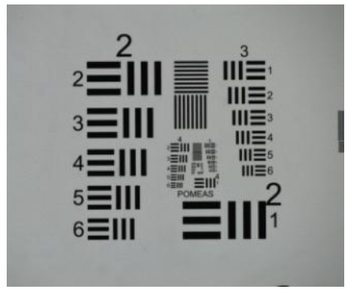
Hardware

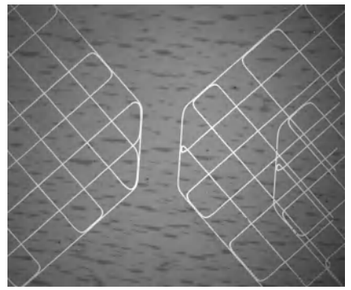
Clocks

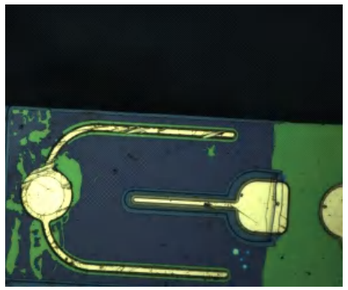
Mechanical

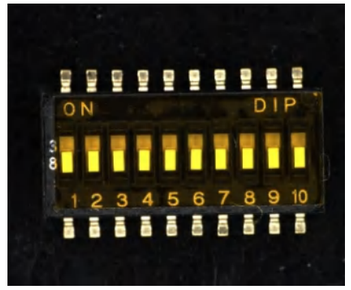
Car

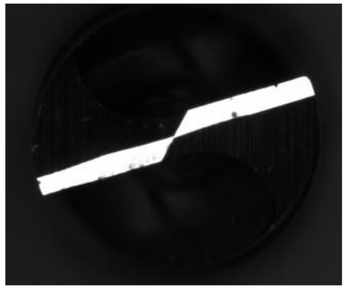
PRODUCT CASES









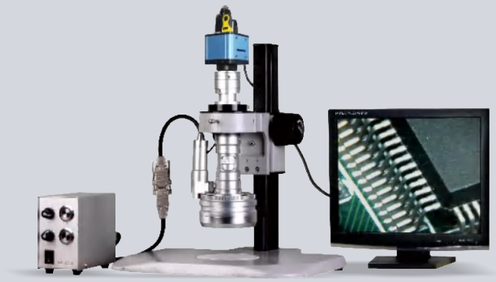


Stereo Microscope

Continuously zoom

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.

Stereo Microscope			
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;
	Oblique binocular observation head tilted at 45°, interpupillary distance adjustment: 54mm-75mm, fixed eyepiece tube, with fixed and fixed locking function;	45° tilted trinocular observation head, interpupillary distance adjustment: 54mm-75mm, fixed eyepiece tube, with fixed and fixed locking function;	45° tilted binocular observation head, pupil distance adjustment: 52mm-76mm, fixed eyepiece tube;
	/	60° tilted trinocular observation head, interpupillary distance adjustment: 54mm-75mm, fixed eyepiece tube, with fixed and fixed locking function;	/
Eyepiece	High eye point large field eyepiece WF10TX20mm, adjustable diopter, micrometer can be installed;	High eye point large field eyepiece WF10TX22mm, adjustable diopter, micrometer can be installed;	High eye point large field eyepiece WF10TX22mm, adjustable diopter, micrometer can be installed;
	High eye point large field eyepiece WF15TX15mm, adjustable diopter, micrometer can be installed;	High eye point large field eyepiece WF15TX15mm, adjustable diopter, micrometer can be installed;	High eye point large field eyepiece WF15TX16mm, adjustable diopter, micrometer can be installed;
	High eye point large field eyepiece WF20TX10mm, adjustable diopter, micrometer can be installed;	High eye point large field eyepiece WF20TX10mm, adjustable diopter, micrometer can be installed;	High eye point large field eyepiece WF20TX12mm, adjustable diopter, micrometer can be installed;
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 100mm;
	/	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	Camera receiver, adjustable focus;		



3D Video Microscope

High depth-of-field 3D microscope with 360° real-time image observation

3D video microscope has varied inspection angles: 30°，35°，40°，45°，Rotating prism is driven by DC servo-motor, live images will be transmitted to HD display for inspection.

The rotating speed can be controlled by our standard control box, which also control the rotating direction and the brightness of the ring light, by these to provide a perfect inspection.

Its structure is modular designed, magnification increasing lens and DOF increasing lens are optional. Camera VGA-A3 has a function of saving images into a SD card, by which operator can copy images to PC or share with others.

Parameter of 3D microscope with deep DOF.		
Code	PMS-MT3010	PMS-MT3020
Optical Magnification	0.35X-2.25X	0.35X-2.25X
Video Magnification	24X-152X	24X-152X
Inspection Angle	45°	30°
Rotary Angle	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

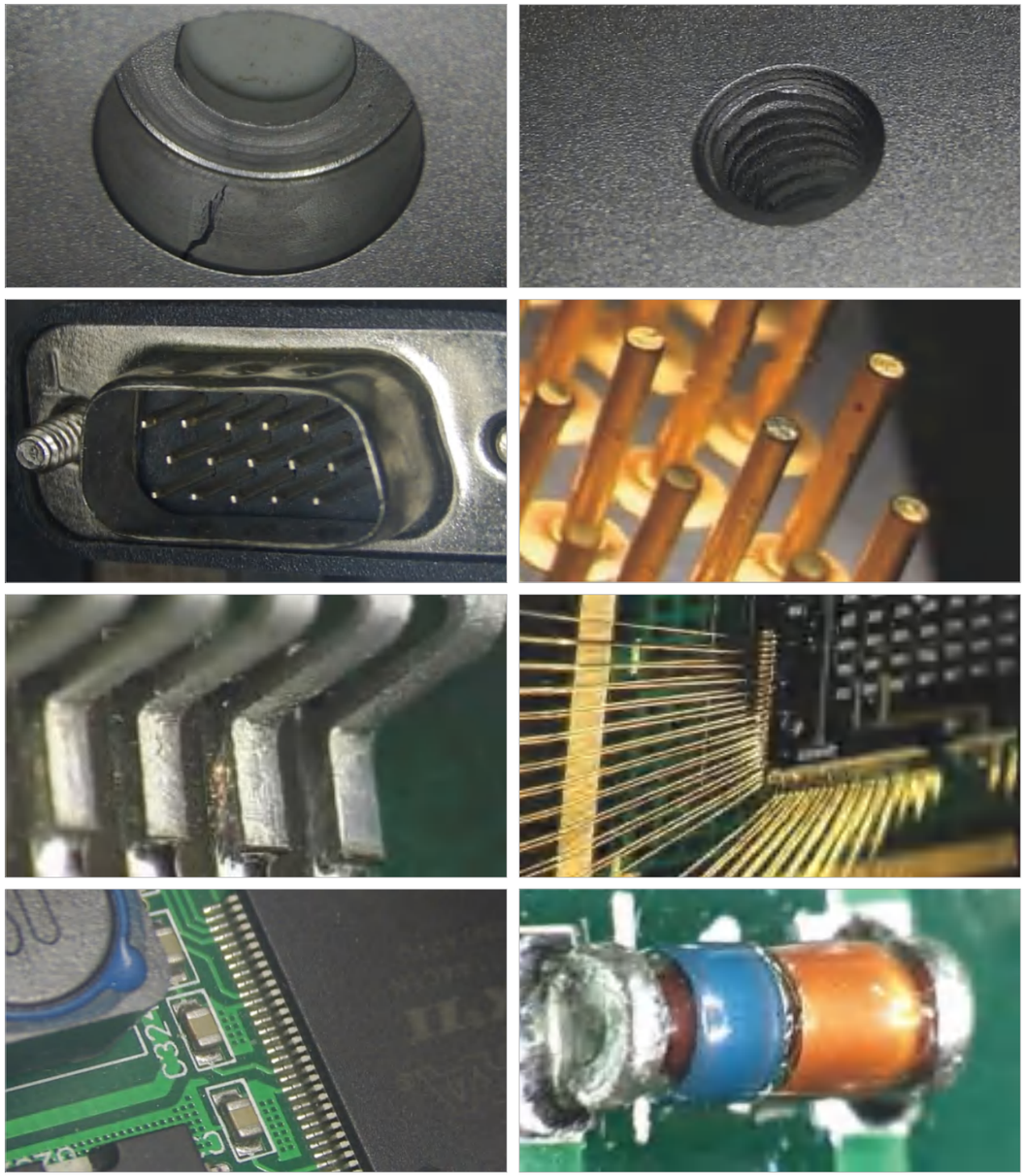
PRODUCT ADVANTAGES

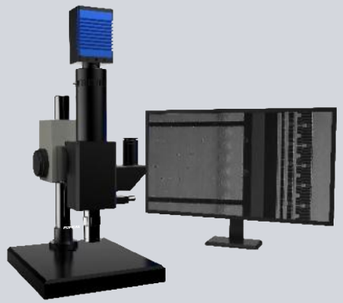
1、Live inspection, 360°rotating for all direction inspection;
2、Vivid image with high contrast;
3、Rotating speed is adjustable, continual zoom, multiple angle inspection;
4、Deep DOF, High resolution（supported by digital camera).

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.

APPLICATION FIELDS





PMS-VM

DIC microscope vision system with high contrast and uniform interference colours

Long Working Distance Apo Objective Lens Parameter Table

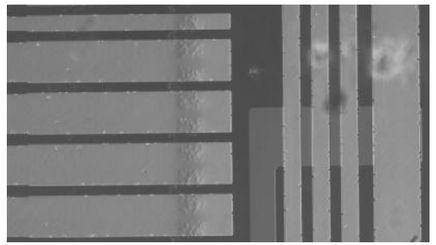
Code	Magnification	Numerical apertureWorking	Distance (mm)	Focal length (mm)	Depth of field (μm)	Resolution (μm)	Field Of View	
							Eyepiece WF 10/24	CCD Sensor 1/2"
PMS-MPO5	5X	0.14	45	40	14	2	ϕ4.8	0.96x1.28
PMS-MPO10	10X	0.28	34	20	3.5	1	ϕ2.4	0.48x0.64
PMS-MPO20	20X	0.29	30.8	10	3.5	1	ϕ1.2	0.24x0.32
PMS-MPO50	50X	0.42	20.5	4	1.6	0.7	ϕ0.48	0.10x0.13

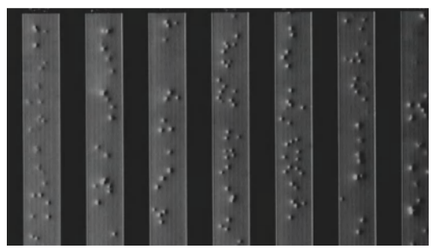
OPTIONAL ACCESSORIES

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

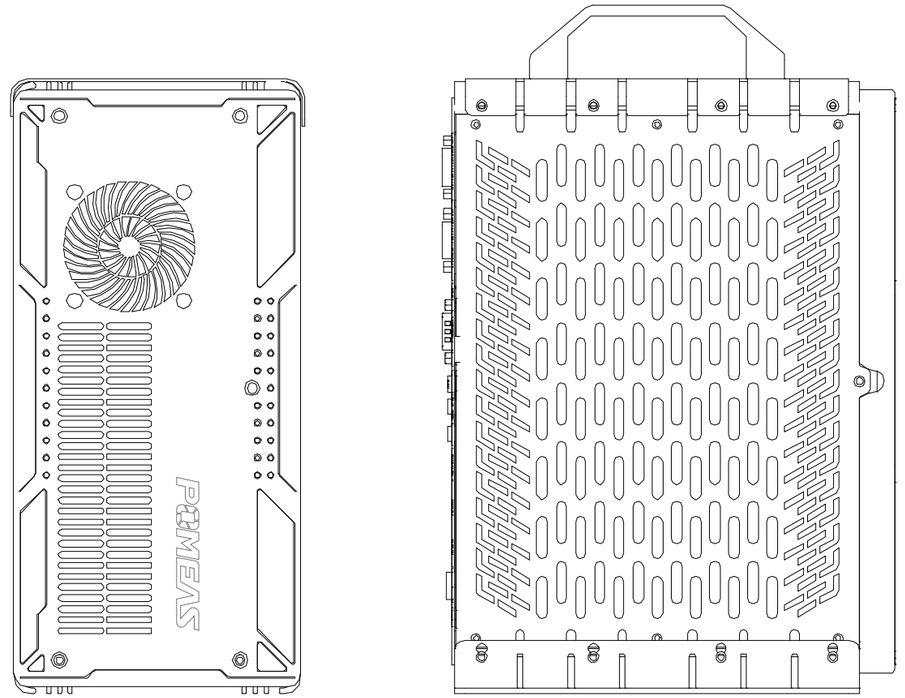
PRODUCT CASES

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





PRECISION MOTION CONTROL SYSTEM



Precision motion control systems: vision control systems, motion control systems.

Vision Controller C1/C2

Vision Controller Parameter List

Model	C1/C2
Processing Unit	i5/i7
Random Access Memory (ram)	8G, Maximum expansion 32G
Discrete Graphics Card	GTX1650 4G(Optional)
Number Of Cameras	3 (supports expansion)
Serial Communication Port	2*RS232
Universal Serial Bus	4*USB3.0、4*USB2.0
Power Supply Method	220V±10%、50~60Hz
Heat Dissipation Method	Intelligent Fan Cooling
Operating Temperature	0℃~50℃
Operating Humidity	10%~85%, no condensation

PRODUCT FEATURES

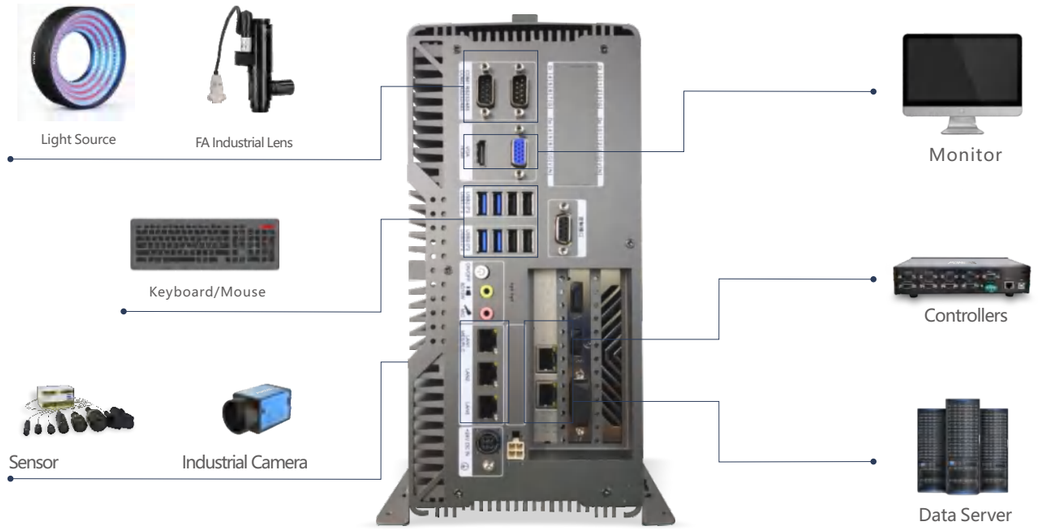
- The industry's highest level of integrated design;
- Supports a rich set of interfaces;
- Supports rich image processing functions;
- Support AI deep learning inference/detection function;
- Compact size, integrated functions, space-saving, easy to carry;
- High-performance multi-core processor, fast and smooth computing efficiency.
- Supports simultaneous acquisition of multiple cameras, can also be connected to the light source system, motion controllers.
- Good heat dissipation performance to support long time stable operation.

PRODUCT ADVANTAGES

The standard intelligent vision system is a "universal, standard" industrial vision system developed by POMEAS;
It also integrates vision software and hardware to provide a "one-stop, plug-and-play" solution for your industrial vision applications.

Precision Motion Control System www.pomeas.com

INTERFACE INTRODUCTION



Motion Controller

CMR-5000

Measuring machine control system based on advanced MCU+FPGA design

PRODUCT ADVANTAGES

- Based on the advanced MCU+FPGA design of the measuring machine control system, the peripheral control signals are completely isolated from the MCU+FPGA and have a variety of additional functions, which is the special controller for fully automatic image measuring machines, CMMs, etc. in the Promise products.It is the special controller for fully automatic image measuring machine, CMM and so on;
- Integrate the functions of scale/encoder counting/motor control/probe/probe latching/light source control/I/O control, etc. It communicates with PC by network cable and supports 32 and 64 bit operating systems at the same time;
- Provide One Box solution for image measuring instrument electronic control system, significantly improve the image measuring instrument electronic control system complicated, high cost, low performance, failure rate and other issues.

PRODUCT FEATURES

- Realise high-precision motion control of the machine, with 6-axis high-speed differential pulse output control interface. Perfect motion control function: support any 2-axis straight line, arc, ellipse interpolation.Support any 3-axis spatial arc interpolation, spatial helix, 4-axis straight line interpolation, dual-coordinate flight interpolation, following interpolation movement, etc.; (standard acceleration and deceleration planning and control functions, can achieve accurate three-dimensional spatial straight line interpolation).(The standard acceleration and deceleration planning control function can realise accurate three-dimensional space linear interpolation and circular arc interpolation movement.)(Standard acceleration and deceleration planning control function can realise precise 3D linear interpolation and circular arc interpolation motion)
- With forward-looking pre-processing algorithm, reverse gap compensation, pitch error compensation, etc;
- High-speed and accurate preservation of every required position inside the card to realise the function of capturing in motion;
- With continuous motion trajectory planning ability, turn automatically without stopping planning motion;
- With rich motion modes: return to zero motion, point motion, Jog motion mode, interpolation motion, continuous motion and other rich motion modes to meet the needs of multi-functional motion;
- 4-axis scale counting, can be connected to any brand differential (RS422) square wave signal output scale;
- Built-in 8-zone ring light source drive control, 2-channel bottom light source drive control, 1-channel coaxial light source drive control;
- Adjustable brightness range 0-200 levels, brightness level 1-16 levels;Programmable 6045 light source control (40 zones);
- Contact probe/probe interface, triggering hardware synchronous locking of 3-axis scale data;
- I/O interface, input detection function, output drive function, all have optocoupler isolation protection function;
- The use of network interface data communication, strong anti-interference ability, long communication distance, stable and reliable;
- API for image measuring instrument and CMM practical application design, only a few API can complete all the functions.

Flashmeter controller (semi-automatic)

CMR-2000

Compact structure, high positioning accuracy and speed

PRODUCT ADVANTAGES

- CMR-2000 is a 3-axis encoder counter based on advanced MCU counting with various additional functions, and is a dedicated controller for manual image measuring machines, manual CMMs, etc. in the Bumis product line.Controller;
- CMR-2000 integrates scale/encoder counting/measuring head/probe latching/lamp control/I/O control/framing lens, etc. It communicates with PC via a USB cable and supports 32 and 64 bit operating systems. 64-bit operating system. For manual image measuring instrument electronic control system provides a One Box solution, significantly improving the manual image measuring instrument electronic control system complicated, high cost, low performance, failure rate and other issues.

PRODUCT FEATURES

- 3-axis scale counting, can be connected to any brand of single-ended (TTL) or differential (RS422) square wave signal output scale;Programmable 6045 light source control (40 zones); High-speed programmable 6045 light source control (40 zones).

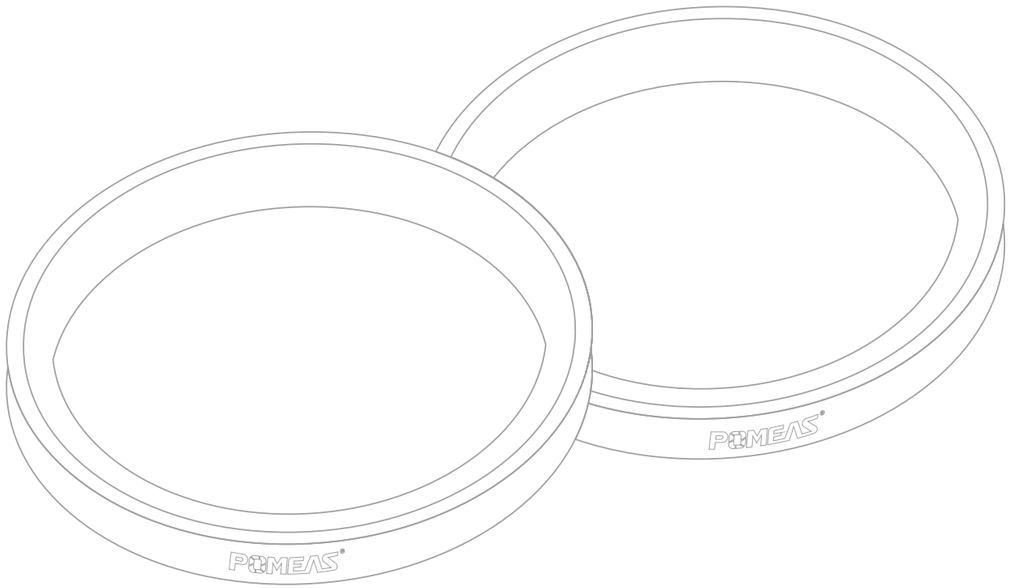
① High-speed programmable base light source can be connected to the base light source with 3V-5V (single LED) or 6-24V (multiple LEDs);

② The programmable coaxial light/laser indicator can be connected to various coaxial light sources with 3V-5V working voltage;

③ Software-adjustable brightness range of 0-199 for all kinds of light sources;

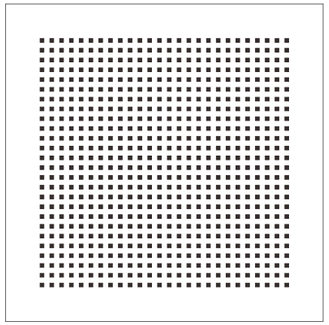
- Contact probe/probe interface, triggering hardware synchronous locking of 3-axis scale data;
- Fixed lens interface, the software directly identifies and reads the current magnification of the lens;
- I/O interface, input detection function, output drive function, all have optocoupler isolation protection function;
- The use of optoelectronic isolation USB (to RS232) data communication, anti-interference ability, long communication distance, stable and reliable;
- API is designed for the practical application of image measuring instrument and CMM, only a few APIs are needed to complete all the functional operations.

ACCESSARY SERIES

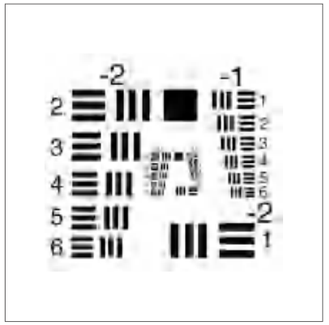


Testing Board Series

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 .



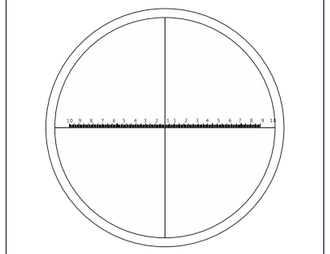
Distortion Test Board



Resolution Test Board

Concentric Square Test Board

DOF Test Board

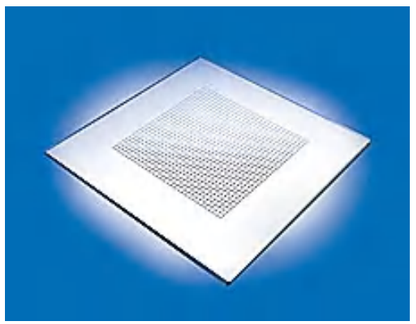


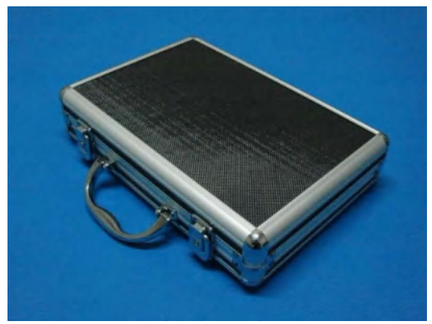
Contact Pavtition Boavd

Contrast Test Board

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

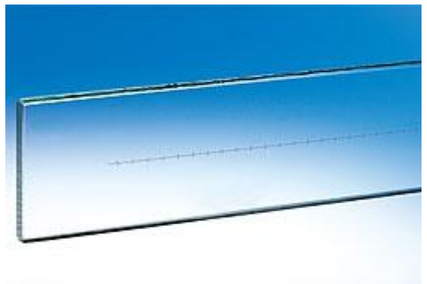
1. Test and modify distortion of vision machine system.
2. Modify microscope stage perspective error.
3. Measure vision field.

Product Parameter Table

Grid Size	Thickness	Photolithography Base Material	Minium Line width	Contact Hole	CD Tolerance	Uniform	Aliannent 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	Channei	Output Voltage	Output Current	Trigger Function	Recommendedload
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

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.

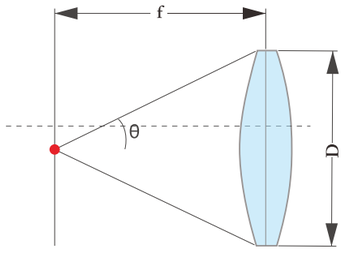
Optical Polarizer Parameter

Code	Specification	Aperture	Screw Dimension
PMS-CPL-305	Polarizing filter (Rotatable structure)	26mm	M30.5x0.5
PMS-CPL-355	Polarizing filter (Rotatable structure)	32.3mm	M35.5x0.5
PMS-CPL-405	Polarizing filter (Rotatable structure)	35.7mm	M40.5x0.5
PMS-CPL-375	Polarizing filter (Rotatable structure)	34.4mm	M37.5x0.5

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

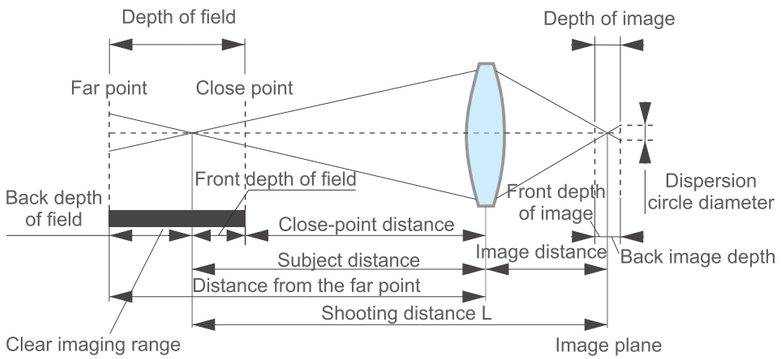
1. Depth of field is the distance at which acceptable image sharpness can be maintained without refocusing.
2. Depth Of Field Calculation Formula:

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)

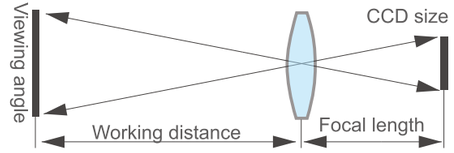


Depth Of Field Overview Diagram

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	32threads	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

9. Forstørrelse

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)

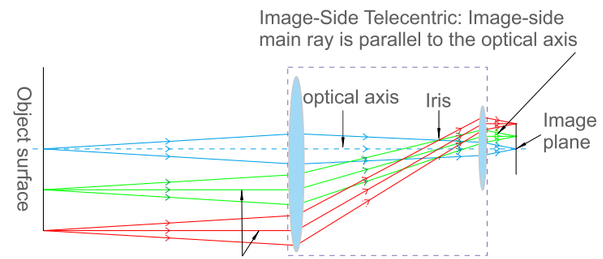
(1 inch = 25.4mm)

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.



Object-Side Telecenter: Object-side main ray and optical axis parallel

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.