

## MACHINE VISION LENS

### Ultra-high resolution compatible to 2-mega-pixel cameras



The machine vision applications are ever growing and are playing important roles in major industries where higher level of quality assurance and zero defect is expected.

The important roles include surface inspection, completeness checks, measuring, defect detection, robot vision for automated production and many others. To be qualified for the important roles, the lenses are designed with what the machine vision systems expect on optics such as;

- Ultra-high resolution compatible to even mega-pixel cameras, needless to say of ideal for high-resolution C-mount cameras.
- Less distortion.
- Best optical performance for short-distant objects.
- Focus & iris lock screws and 4mm-long C-mount threads reliable against vibration and shock.
- Compact in design with max. diameter of 29.5mm.

### SPECIFICATIONS

					
Model	H1214-M	C1614-M	C2514-M	C3516-M	C5028-M
Format	1/2", 1/3"		2/3", 1/2", 1/3"		
Focal Length	12mm	16mm	25mm	35mm	50mm
Max. Aperture Ratio	1:1.4	1:1.4	1:1.4	1:1.6	1:2.8
Iris Range	F1.4~16	F1.4~16	F1.4~16	F1.4~16	F2.8~22
Angle of View (Horizontal)[deg]	2/3"	---	31.0	20.0	14.8
	1/2"	28.9	22.7	14.6	10.8
	1/3"	21.9	17.1	11.0	8.1
Min. Object Distance	0.25m	0.25m	0.25m	0.4m	0.9m
Filter Size	27.0mm P=0.5mm				
Dimensions	27.0x28.5	27.0x33.2	27.0x32	27.0x35.4	27.0x34
Weight	55g	63g	55g	64g	55g
Mount (Flange back)	C (17.526mm)				
Remarks	Lock Screw, For Close-Up Application				

## MACHINE VISION LENS

### C7528-M for Ultra-high resolution compatible to **8-mega-pixel** cameras



The machine vision applications are ever growing and are playing important roles in major industries where higher level of quality assurance and zero defect is expected.

The important roles include surface inspection, completeness checks, measuring, defect detection, robot vision for automated production and many others. To be qualified for the important roles, the lenses are designed with what the machine vision systems expect on optics such as;

- Ultra-high resolution compatible to **8-mega-pixel** cameras.
- Less distortion.
- Best optical performance for close-up applications.
- Focus & iris lock screws and 4mm-long C-mount threads reliable against vibration and shock.
- Compact in design with max. diameter of 29.5mm.

### SPECIFICATIONS

Model	C7528-M	
Format	2/3", 1/2", 1/3"	
Focal Length	75mm	
Max. Aperture Ratio	1:2.8	
Iris Range	F2.8 ~ 32	
Angle of View (Horizontal)	2/3"	6.9 [deg.]
	1/2"	5.0 [deg.]
	1/3"	3.8 [deg.]
Min. Object Distance	0.7m	
Filter Size	30.5mm P=0.5mm	
Dimensions	34 x 59.6mm Max. length: 70.1mm	
Weight	125g	
Mount (Flange back)	C (17.526mm)	
Remarks	Lock Screw For Close-Up Application	

## ULTRAVIOLET CAMERA LENS

### H2520-UVM for 1/2" ultraviolet sensitive cameras



PENTAX launches the H2520-UVM that is specifically designed for use with ultraviolet (UV) sensitive cameras. The H2520-UVM is made up of fluorites and quartz and brings its high performance into full play under the extended UV lights range from 230nm to 365nm.

The H2520-UVM is produced with an aperture of F2.0, allowing the lens to transmit more UV light than F4.0 lenses. The H2520-UVM requires only 1/4 of the UV light to achieve the same results.

The H2520-UVM is compatible with 2-mega-pixel cameras and transmits the extensive lights from UV to IR, making this lens ideal for a wide range of machine vision applications.

The H2520-UVM is equipped with fixing screws for both focus and iris rings and is shock and vibration resistant.

### **APPLICATIONS**

- Detection of fire, forgery, falsified documents, and money inspection.
- Inspection of oil contamination and leakage
- Manufacturing and quality control of semiconductors

### **SPECIFICATIONS**

Model	H2520-UVM	
Format	1/2", 1/3"	
Focal Length	25mm	
Max. Aperture Ratio	1:2.0	
Iris Range	F2.0 ~ 16	
Angle of View (Horizontal)	1/2"	14.6 [deg.]
	1/3"	11.0 [deg.]
Min. Object Distance	0.25m	
Filter Size	27mm P=0.5mm	
Dimensions	29.5 × 46.0mm	
Weight	78g	
Mount (Flange back)	C (17.526mm)	
Remarks	Lock Screw For Close-Up Application	

## LINE-SCAN CAMERA LENSES

### Ultra-high resolution corresponding with 5 μ m pixel



PENTAX have developed YF3528 / YK3528 and YF5028 / YK5028 lenses for line-scan cameras as a basis of the long-term experience in the photographic industry and accumulated technologies and know-how in the machine vision industry.

The lenses are exclusively for line-scan cameras and are designed to best perform on close-up applications.

#### FEATURES

- Ultra-high resolution corresponding with 5 μ m pixel.
- Less distortion.
- Best optical performance for short-distant objects.
- Focus & Iris lock screws against vibration and shock.
- Mount; F-mount(Nikon) & K-mount(PENTAX)

#### SPECIFICATIONS

Model	YK3528	YF3528	YK5028	YF5028
Format size	45mm			
Focal Length	35mm	35mm	50mm	50mm
Max. Aperture Ratio	1:2.8	1:2.8	1:2.8	1:2.8
Iris Range	F2.8~22	F2.8~22	F2.8~22	F2.8~22
Angle of View (45mm Lines)	64.4 [deg.]	64.4 [deg.]	47.6 [deg.]	47.6 [deg.]
Min. Object Distance	0.19m	0.19m	0.25m	0.25m
Filter Size	62.0mm P=0.75mm			
Dimensions	72.0x57.8mm	72.0x56.8mm	72.0x57.8mm	72.0x56.8mm
Weight	400g	400g	420g	420g
Mount	K-mount	F-mount	K-mount	F-mount
Remarks	Focus Lock Screw, Iris click stop			