



PRECISION MACHINE VISION LENS

TUS-1220-12MP

For IMX253, IMX255 1.1inch 12Mega-Pixel

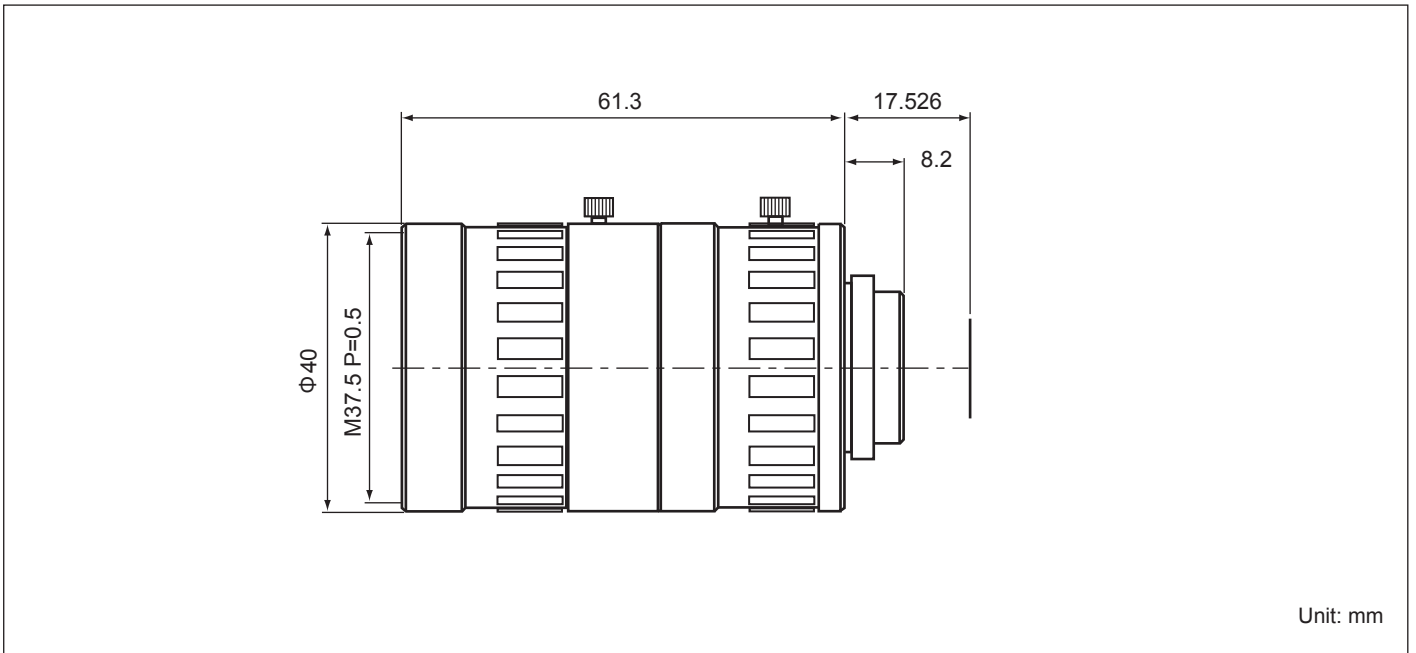


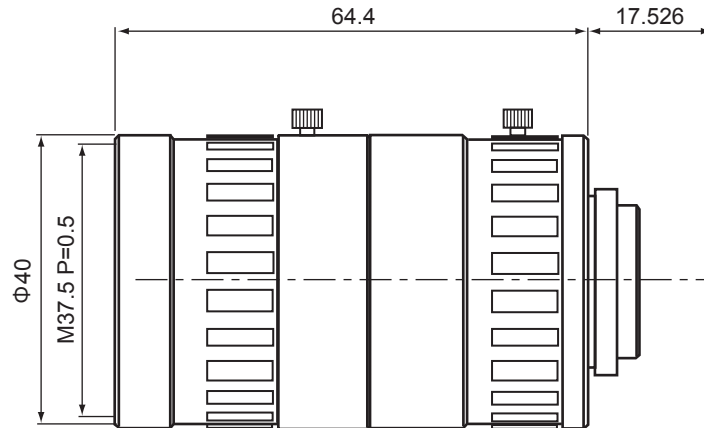
Image Format	1.1 inch (14.2 x 10.4mm, $\Phi$ 17.4mm)		
Focal Length	12mm		
Relative Aperture	F=1:2.0		
Iris Range	F2.0 to 16		
Angular Field of View	Horizontal	61.4° (1.1inch)	55.8° (1inch)
	Vertical	48.0° (1.1inch)	43.6° (1inch)
Resolution	12MP, 3.45 $\mu$ m		
TV Distortion	0.26% (1.1inch)	0.26% (1inch)	
M.O.D.(Minimum Object Distance)	0.1m		
Back Focal Length	10.36mm		
Flange Back Length	17.526mm		
Operation	Focus	Manual with lock screw	
	Iris	Manual with lock screw	
Lens Mount	C-mount		
Filter Screw	M37.5 P=0.5		
Dimensions	$\Phi$ 40 x 61.3 mm		
Weight	190 g		
Operating Temperature	-20 to +60°C		



PRECISION MACHINE VISION LENS

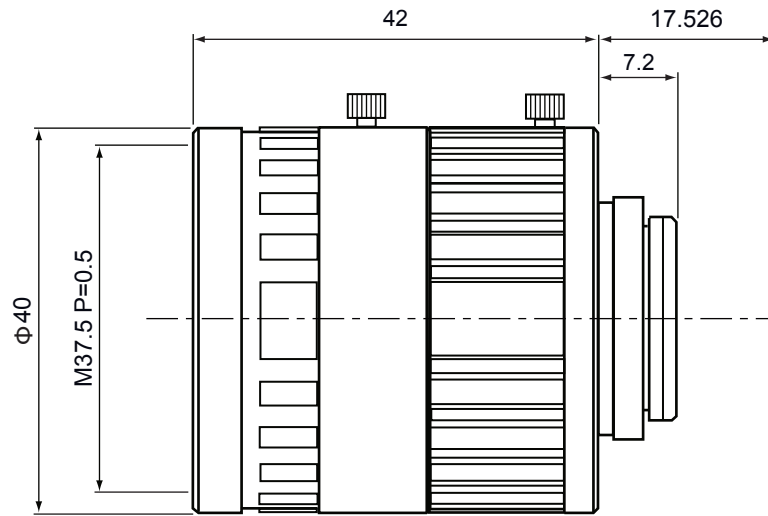
TUS-1616-12MP

For IMX253, IMX255 1.1inch 12Mega-Pixel



Unit: mm

Image Format	1.1 inch (14.2 x 10.4mm, Φ 17.4mm)		
Focal Length	16mm		
Relative Aperture	F=1:1.6		
Iris Range	F1.6 to 16		
Angular Field of View	Horizontal	47.8° (1.1inch)	43.3° (1inch)
	Vertical	36.8° (1.1inch)	33.4° (1inch)
Resolution	12MP, 3.45μm		
TV Distortion	0.22% (1.1inch)	0.23% (1inch)	
M.O.D.(Minimum Object Distance)	0.1m		
Back Focal Length	10.7mm		
Flange Back Length	17.526mm		
Operation	Focus	Manual with lock screw	
	Iris	Manual with lock screw	
Lens Mount	C-mount		
Filter Screw	M37.5 P=0.5		
Dimensions	Φ40 x 64.4 mm		
Weight	190 g		
Operating Temperature	-20 to +60°C		



Unit: mm

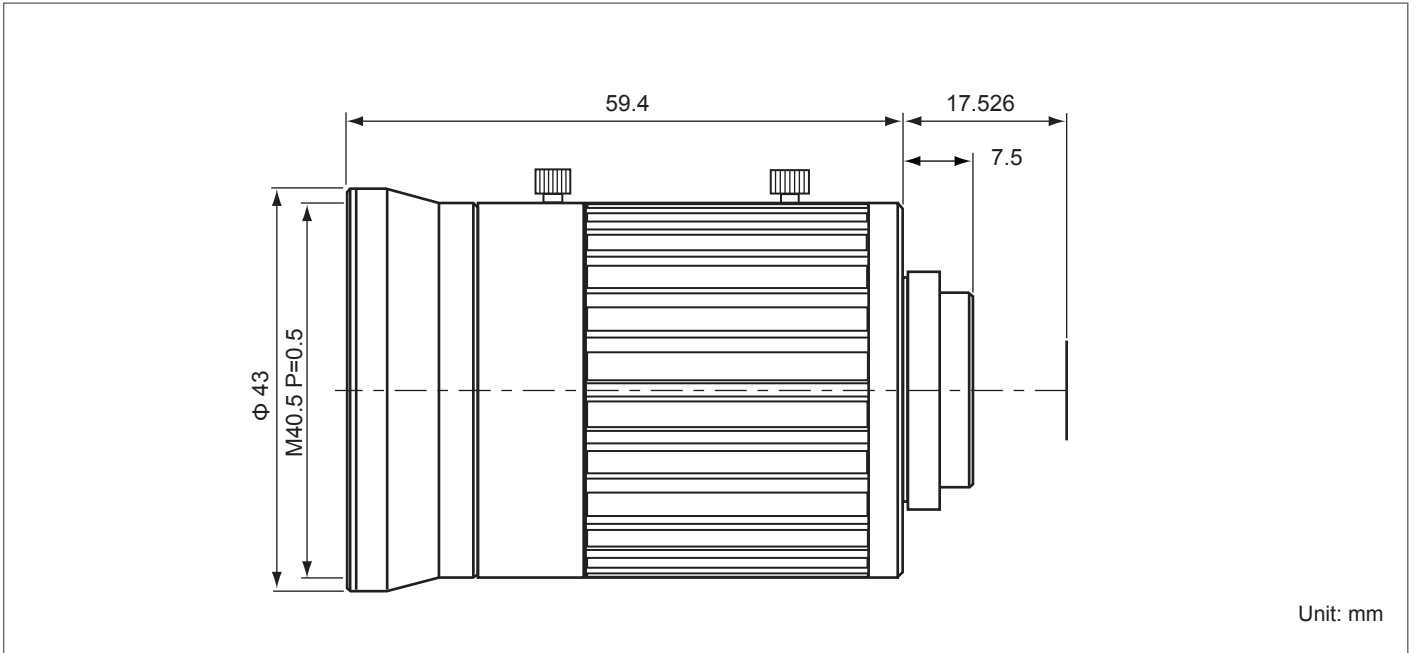
Image Format	1.1 inch (14.2 x 10.4mm, Φ 17.4mm)		
Focal Length	25mm		
Relative Aperture	F=1:1.4		
Iris Range	F1.4 to 16		
Angular Field of View	Horizontal	31.8° (1.1inch)	28.9° (1inch)
	Vertical	24.0° (1.1inch)	21.9° (1inch)
Resolution	12MP, 3.45μm		
TV Distortion	0.23% (1.1inch)	0.10% (1inch)	
M.O.D.(Minimum Object Distance)	0.16m		
Back Focal Length	10.8mm		
Flange Back Length	17.526mm		
Operation	Focus	Manual with lock screw	
	Iris	Manual with lock screw	
Lens Mount	C-mount		
Filter Screw	M37.5 P=0.5		
Dimensions	Φ40 x 42 mm		
Weight	102 g		
Operating Temperature	-20 to +60°C		



PRECISION MACHINE VISION LENS

TUS-3514-12MP

For IMX253, IMX255 1.1inch 12Mega-Pixel



Unit: mm

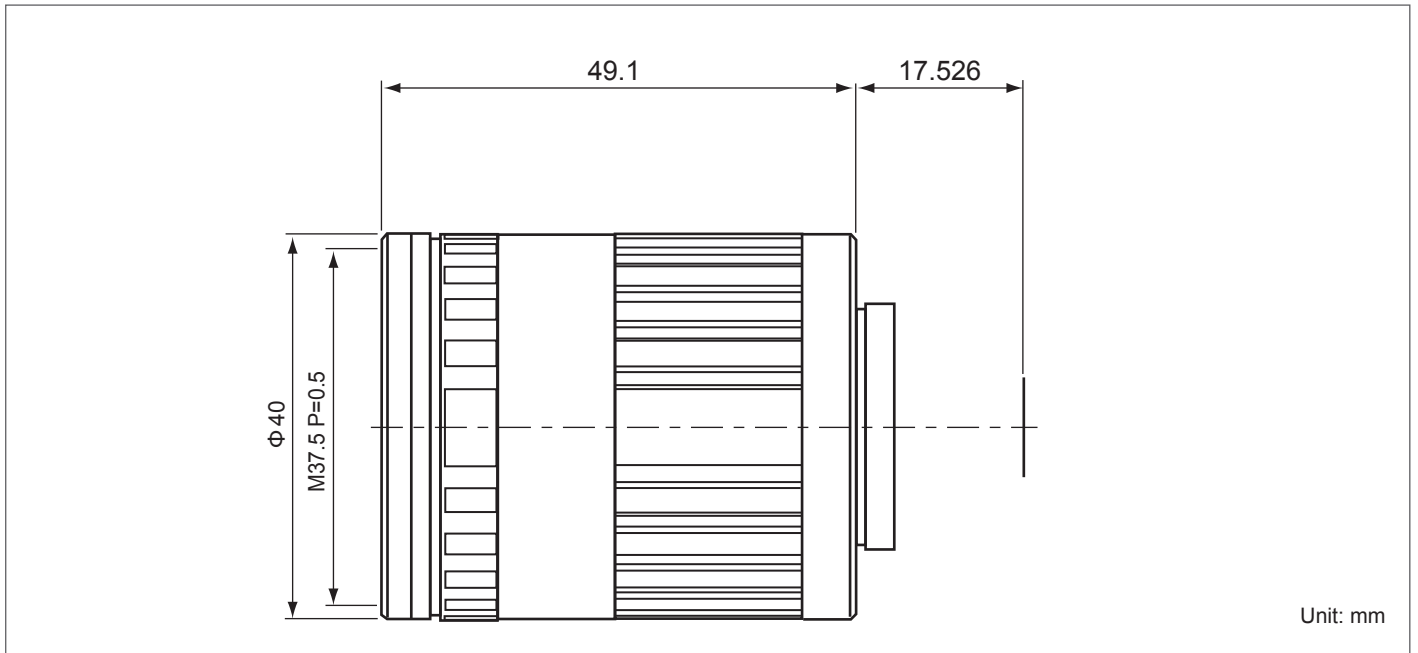
Image Format	1.1 inch (14.2 x 10.4mm, Φ 17.4mm)		
Focal Length	35mm		
Relative Aperture	F=1:1.4		
Iris Range	F1.4 to 16		
Angular Field of View	Horizontal	23.0° (1.1inch)	20.9° (1inch)
	Vertical	17.3° (1.1inch)	15.7° (1inch)
Resolution	12MP, 3.45μm		
TV Distortion	0.09% (1.1inch)	0.12% (1inch)	
M.O.D.(Minimum Object Distance)	0.16m		
Back Focal Length	11.3mm		
Flange Back Length	17.526mm		
Operation	Focus	Manual with lock screw	
	Iris	Manual with lock screw	
Lens Mount	C-mount		
Filter Screw	M40.5 P=0.5		
Dimensions	Φ43 x 59.4 mm		
Weight	120 g		
Operating Temperature	-20 to +60°C		



PRECISION MACHINE VISION LENS

TUS-5024-12MP

For IMX253, IMX255 1.1inch 12Mega-Pixel



Unit: mm

Image Format	1.1 inch (14.2 x 10.4mm, Φ 17.4mm)		
Focal Length	50mm		
Relative Aperture	F=1:2.4		
Iris Range	F2.4 to 22		
Angular Field of View	Horizontal	16.0° (1.1inch)	14.6° (1inch)
	Vertical	12.0° (1.1inch)	11.0° (1inch)
Resolution	12MP, 3.45μm		
TV Distortion	0.06% (1.1inch)	0.03% (1inch)	
M.O.D.(Minimum Object Distance)	0.55m		
Back Focal Length	16.24mm		
Flange Back Length	17.526mm		
Operation	Focus	Manual with lock screw	
	Iris	Manual with lock screw	
Lens Mount	C-mount		
Filter Screw	M37.5 P=0.5		
Dimensions	Φ40 x 49.1 mm		
Weight	126 g		
Operating Temperature	-20 to +60°C		



PRECISION MACHINE VISION LENS

TUS-7528-12MP

For IMX253, IMX255 1.1inch 12Mega-Pixel

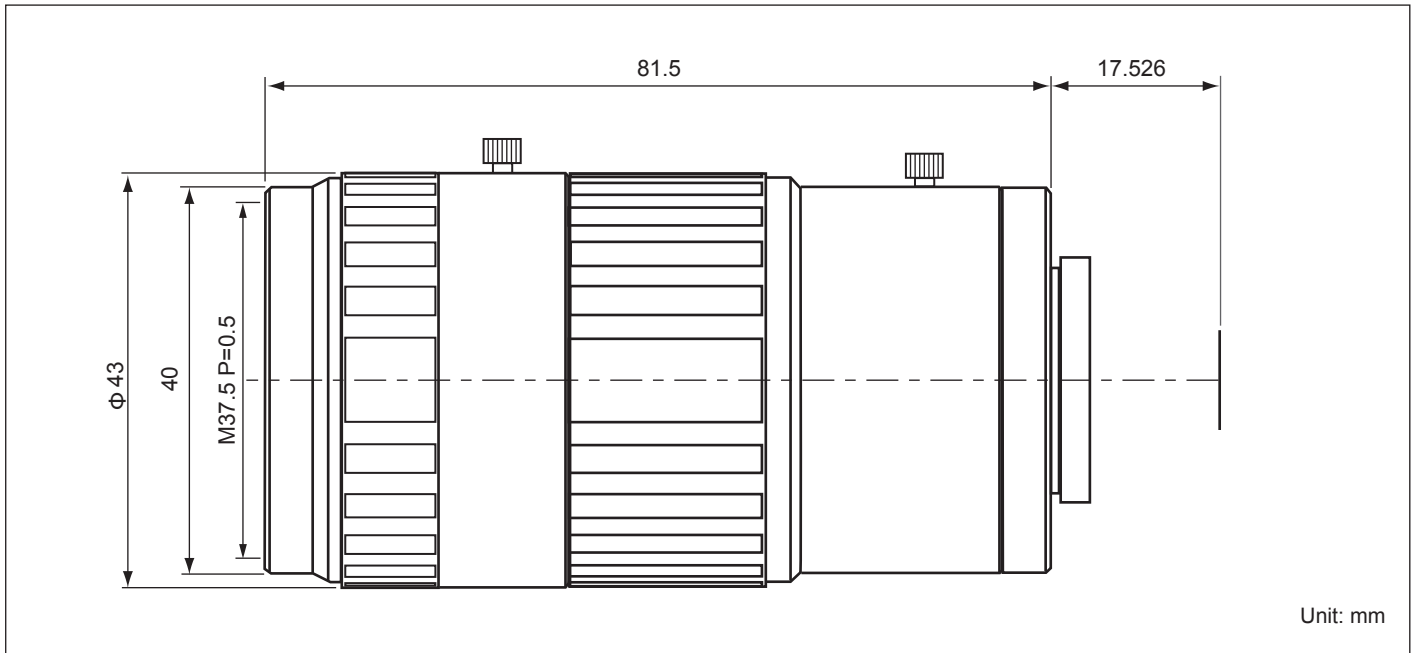


Image Format	1.1 inch (14.2 x 10.4mm, $\Phi$ 17.4mm)		
Focal Length	75mm		
Relative Aperture	F=1:2.8		
Iris Range	F2.8 to 32		
Angular Field of View	Horizontal	10.7° (1.1inch)	9.7° (1inch)
	Vertical	8.1° (1.1inch)	7.3° (1inch)
Resolution	12MP, 3.45 $\mu$ m		
TV Distortion	0.03% (1.1inch)	0.03% (1inch)	
M.O.D.(Minimum Object Distance)	0.6m		
Back Focal Length	36.9mm		
Flange Back Length	17.526mm		
Operation	Focus	Manual with lock screw	
	Iris	Manual with lock screw	
Lens Mount	C-mount		
Filter Screw	M37.5 P=0.5		
Dimensions	$\Phi$ 43 x 81.5 mm		
Weight	250 g		
Operating Temperature	-20 to +60°C		