

High Magnification Zoom Tube

High Magnification Manual Zoom Tube

High Magnification Motorized Zoom Tube

Compatible with wide range of options at zoom ratio 12X.
High magnification and high resolution inspection can be made with the use of objective lens. Ideal for integrating to systems due to its lightweight and compact design.



MS-12Z-L1215

MS-12Z-M2530

MS-12Z-H450

MS-12AZ series

Connecting diagram with this lens tube.

Connector is HR10A-10R-12P(HIROSE) and feeding side connector is HR10A-10P-12S.

Signal	Pin number	Signal name	Signal explanation
TELE(high magnification) limit			
+V	1	+V	CW limit sensor+power supply (DC5-24V)
OUT	2	CCWLS output	TELE limit sensor output (shading OFF)
OV	3	OV	CW limit sensor, signal ground
SUNX PM-F24			NPN open collector DC30V/50mA or less
WIDE(low magnification) limit			
+V	4	+V	CCW limit sensor+power supply (DC5-24V)
OUT	5	CCWLS output	WIDE limit sensor output (shading OFF)
OV	6	OV	CCW limit sensor, signal ground
SUNX PM-R24			NPN open collector DC30V/50mA or less
	7	NC	
0.72" / 1Pulse (FullStep)	8	Motor lead	-
	9	Motor lead	-
	10	Motor lead	-
	11	Motor lead	-
	12	Motor lead	-

Motor : Oriental PK525PMA
Recommended driver CRD5103PB or CRD5103P

Specification

Model #	MS-12Z-L1215 / MS-12AZ-L1215			MS-12Z-M2530 / MS-12AZ-M2530			MS-12Z-H450 / MS-12AZ-H450		
	Magnification	WD	Focal depth	Magnification	WD	Focal depth	Magnification	WD	Focal depth
	1.25X	46.2mm	±305.56µm	2.5X	35.25mm	±76.36µm	4.16X	14mm	±27.5µm
	7.5X		±16.27µm	15X		±3.51µm	25X		±1.42µm
	15X		±6.88µm	30X		±2.12µm	50X		±1.36µm
			11.2µm			5.59µm			3.4µm
			2.6µm			1.20µm			0.76µm
			1.7µm			0.93µm			0.75µm
			0.03			0.06			0.1
			0.13			0.28			0.44
			0.20			0.36			0.45
illumination	Coaxial illumination								
CCD size	under 1/2 inch camera								
Camera mount	C-MOUNT								
Weight	1.05kg/1.4kg (Motorized type) 1.3kg/ 1.65kg (Motorized type) 1.15kg/1.5kg (Motorized type)								

Zoom Tube series

- Zoom tube
- Right angle zoom tube
- Two field zoom tube
- Binocular zoom tube
- Trinocular zoom tube

Standard C-mount zoom tube for 0.75X ~4.5X.
Visible inspection and CCD/TV inspection can be done by adjusting between binocular & trinocular zoom tubes for MS-505 and MS-506 lens.



MS-501

MS-505

MS-506

MS-507

MS-508

Specification

Model #	MS-501/MS-507/MS-508/MS-505/MS-506					
Magnification	0.75X	1X	2X	3X	4X	4.5X
Working distance	90mm					
Focal depth	1.8mm	1.0mm	356µm	208µm	148µm	129µm
Distortion	0.5%	0.2%	0.05%	0.05%	0.1%	0.1%
Resolution LP/mm	86LP/mm	110LP/mm	167LP/mm	192LP/mm	204LP/mm	204LP/mm
Resolution power	11.6µm	9.1µm	6.0µm	5.2µm	4.9µm	4.9µm
NA	0.029	0.037	0.056	0.064	0.068	0.069
F number	12.8	13.5	17.8	23.4	29.6	32.6
Eye-piece Field No. (10X)*	φ25.3mm	φ19	φ9.5mm	φ6.3mm	φ4.7mm	φ4.2mm
Camera mount	C-MOUNT					
Equivalent CCD	under 2/3 inch camera					
Weight	MS-501 : 400g / MS-507 : 550g / MS-508 : 1.3kg / MS-505 : 800g / MS-506 : 1.4kg					
An Accessory	MS-501/MS-507/MS-508			MS-505/MS-506		
	2mm Hex wrench 1			Eyepiece HWF-10X, 2mm Hex wrench 1 set each		

* Datas with using binocular tilt zoom MS-505 and trinocular tilt zoom MS-506.