

Metrology Cross Stage



MCS

- + Travel range 102 mm x 102mm (4")
- + Uni- directional repeatability down to 0.1µm
- + Maximum speed 200 mm/ sec
- + Load capacity up to 20 kg
- + Integrated optical limit switches
- + Option: Linear scale

The MCS XY Stage was developed for inspection and microscopy applications.

The MCS XY stage is equipped with re- circulating ball guides on a rigid aluminium- alloy body and two optical limit switches on each axis. Optionally MCS stages can be motorized with DC, 2- phase stepper or linear motor. For higher positioning accuracy and repeatability the MCS stage can be optionally equipped with linear scales.

Specifications

MCS								
Load Characteristics	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)	kax (µrad/ Nm)	kay (µrad/ Nm)
DC- B-040	200	200	200	130	130	90	80	60
2Phase-048	80	80	200	130	130	90	80	60
LM-010	87	87	200	130	130	90	80	60

Specifications

Travel range (mm)	102 x 102			
Straightness / Flatness (µm)	± 2			
Pitch (µrad)	± 40			
Yaw (µrad)	± 20			
Orthogonality (µrad)	on request			
Weight (kg)	22			
Motor (Pitch 2 mm)	DC- B-040	2Phase-048	LM-010	LS-073
Linear scale				
Speed max. (mm/ sec)	90	35	240	240
Resolution calculated (µm)	0.1 (RE)	10 (FS)		
Resolution typical (µm)	0.2	0.1		0.01
Bi- directional Repeatability (µm)	± 1	± 1		
Uni- directional Repeatability (µm)	0.2	0.2		
Nominal Current (A)	1.2	3.8	4.4	
Voltage Range (V)		24		
Accuracy	on request	on request	on request	on request
Velocity Range (mm/ sec)	0.001 ... 200	0.001 ... 200	0.001 ... 200	0.001 ... 200
Material	Aluminium, black anodized	Aluminium, black anodized	Aluminium, black anodized	Aluminium, black anodized

Order Information

6304912030

MCS Metrology Cross Stage, DC Motor- B-040, Travel Range: 102 mm (4") x 102 mm (4"), Optical Limit Switches-010

6304912230

MCS Metrology Cross Stage, DC Motor- B-040, Travel Range: 102 mm (4") x 102 mm (4"), Linear Steel Scale-073, Optical Limit Switches-010

6304922030

MCS Metrology Cross Stage, 2- Phase Stepper Motor-048, Travel Range: 102 mm (4") x 102 mm (4"),
Optical Limit Switches-010

6304922230

MCS Metrology Cross Stage, 2- Phase Stepper Motor-048, Travel Range: 102 mm (4") x 102 mm (4"),
Linear Steel Scale-073, Optical Limit Switches-010

6304942030

MCS Metrology Cross Stage, Linear Motor-010, Travel Range: 102 mm (4") x 102 mm (4"), Optical Limit Switches-010

6304942230

MCS Metrology Cross Stage, Linear Motor-010, Travel Range: 102 mm (4") x 102 mm (4"), Linear Steel Scale-073, Optical Limit Switches-010

Related Products

[A-311 PIGlide IS: Planar XY Air Bearing Stage](#)

[A-322 PIGlide HS Air Bearing Stage](#)

Drawings / Images

Travel (mm) : 102

A : 380
 B : 80
 C : 150
 D : 158,2
 E : 482
 F : 48

