Product Selection Tables

Single X-Axis Nanopositioners

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
10 μm	No	1.5" x 1.0" x 0.375"	Smallest 1-axis stage	Nano-Mini
15 μm to 70 μm	No	0.787" diameter x 1.3" to 3.1"	Unique tubular design	Nano-P Series
30 μm to 100 μm	No	2.0" x 0.5" x 2.75" to 4.8"	Fast, small, versatile	Nano-OP Series
30 μm to 100 μm	Optional up to 1.3" diameter	2.5" x 0.5" x 3.5" to 6"	Fast with aperture	Nano-OPH Series
200 μm	No	4.25" x 3.0" x 0.7"	Lowest out of plane motion	Nano-LR200
500 μm	0.39" x 2.56"	3.39" x 4.72" x 0.6"	Long range motion	Nano-YT500
50 μm to 200 μm	No	6.0" x 4.5" x 1.96"	Heavy load capability	Nano-HL Series

Single Z-Axis Nanopositioners

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
10 μm	No	2.0" x 2.0" x 1.27"	Compact size, highest speed	Nano-HSZ
25 μm	0.25" diameter	2.5" x 2.2" x 0.8"	Compact size with aperture	Nano-MZ
50 μm	1.75" diameter	5" x 4" x 0.77"	High speed	Nano-Z50HS
200 μm	No	2.5" x 2.5" x 1.06"	Long range motion	Nano-CZ200
500 μm	0.5" diameter	5" x 5" x 1.285"	Long range motion	Nano-CZ500
100 μm to 200 μm	2.6" x 2.6"	5.25" x 5.0" x 0.8"	Large aperture for microscopy	Nano-Z Series
500 μm	4.0" x 6.0"	8.25" x 7.0" x 0.75"	Holds multiwell plates	Nano-Z500

XY-Axis Nanopositioners

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
10 μm (XY)	none	2.0" x 2.0" x 1.15"	Fast, high resolution	Nano-HS Series
50 μm (XY)	0.5" dia.	2.1" x 2.1" x 1.1"	Smallest 2-axis stage with aperture	Nano-M250
200 μm (XY)	none	2.5" x 2.5" x 1.2"	Designed specifically for SPM	Nano-SPM200
50 μm (XY)	3.5" x 3.5"	8.9" x 8.9" x 1.25"	Large load capacity (5 kg)	Nano-Max50
50 μm (XY) to 100 μm (XY)	2.0" x 2.0"	4.0" x 4.0" x 1.28"	Compact size with aperture	Nano-H Series
50 μm (XY) to 200 μm (XY)	2.6" x 2.6"	4.75" x 4.75" x 0.5"	Low profile, aperture, Invar or Ti	Nano-Bio2M
50 μm (XY) to 75 μm (XY)	2.6" x 2.6"	4.5" x 4.5" x 1.1"	High speed, large aperture	Nano-PDQ Series
100 μm (XY) to 200 μm (XY)	2.6" x 2.6"	5.0" x 5.0" x 1.3"	Economical with large aperture	Nano-T Series
100 μm (XY) to 200 μm (XY)	2.6" x 2.6"	6.0" x 6.0" x 0.6"	Low profile with large aperture	Nano-Bio Series
100 μm (XY) to 300 μm (XY)	3.3" x 2.1"	6.0" x 8.0" x 0.6"	Low profile, aperture for 3" slides	Nano-BioS Series

XYZ-Axis Nanopositioners

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
10 μm (XYZ)	none	2.0" x 2.0" x 2.0"	Fast, high resolution	Nano-HS Series
50 μm x 50 μm x 25 μm	0.25" dia.	2.5" x 2.2" x 1.9"	Smallest 3-axis stage with aperture	Nano-M350
200 μm (XYZ)	none	2.5" x 2.5" x 2.05"	Compact, long range, low cost	Nano-3D200
500 μm (XYZ)	0.5" dia.	5.125" x 5.0" x 2.21"	Compact, very long range	Nano-3D500
50 μm (XY) x 50 μm (Z)	2.6" x 2.6"	6.25" x 4.5" x 1.35"	High speed, large aperture	Nano-PDQ350
75 μm (XY) x 50 μm (Z)	2.6" x 2.6"	6.25" x 4.5" x 1.35"	High speed, large aperture	Nano-PDQ375
75 μm (XY) x 50 μm (Z)	2.6" x 2.6"	6.0" x 7.5" x 0.865"	High speed, low profile	Nano-LPQ
100 μm (XY) x 20 μm (Z) to 200 μm (XY) x 50 μm (Z)	2.6" x 2.6"	6.5" x 5.0" x 1.5"	Economical with large aperture	Nano-T Series
100 μm (XYZ) to 300 μm (XYZ)	2.6" x 2.6"	7.5" x 6.0" x 0.8"	Low profile with large aperture	Nano-LP Series
100 μm (XYZ) to 300 μm (XYZ)	3.3" x 2.1	6.0" x 8.7" x 0.8"	Low profile, aperture for 3" slides	Nano-LPS Series

Rotational (θ_z) Nanopositioners

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
2 mrad	none	2.0" x 1.25" x 0.5"	Small, accessible rotation axis	Nano-Theta
5 mrad	1.378" diameter	5.0" x 5.0" x 0.5"	Low profile, large aperture	Nano-ThetaH

Z-Axis, θ_X, θ_Y Nanopositioners (Z-axis Linear + Tip + Tilt)

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
25 μm x 1 mrad x 1 mrad	0.25" diameter	2.5" x 2.2" x 0.8"	Smallest Z, θ_X, θ_Y stage	Nano-M3Z
100 μm x 2 mrad x 2 mrad	2.6" x 2.6"	5.25" x 5.0" x 0.8"	Low profile, large aperture	Nano-Align3-100
200 μm x 4 mrad x 4 mrad	2.6" x 2.6"	5.25" x 5.0" x 0.8"	Low profile, large aperture	Nano-Align3-200

XYZ-Axis, θ_X, θ_Y Nanopositioners (3-axis Linear + Tip + Tilt)

Range of Motion	Aperture	Overall Dimensions (inches)	Special Features	Model
50 μm (XY) x 25 μm (Z) x 1 mrad x 1 mrad	0.25" diameter	2.5" x 2.2" x 1.9"	Smallest X, Y, Z, θ_X, θ_Y stage	Nano-Man5
100 μm (XYZ) x 1.2 mrad x 1.5 mrad	2.6" x 2.6"	6.0" x 7.5" x 0.8"	Large aperture Low profile	Nano-Align5-100
200 μm (XYZ) x 2.3 mrad x 3.0 mrad	2.6" x 2.6"	6.0" x 7.5" x 0.8"	Large aperture Low profile	Nano-Align5-200
300 μm (XYZ) x 3.3 mrad x 4.5 mrad	2.6" x 2.6"	6.0" x 7.5" x 0.8"	Large aperture Low profile	Nano-Align5-300

Product Selection Tables

XYZ-Axis, θ_X , θ_Y , θ_Z Nanopositioners (3-axis Linear + Tip + Tilt + Rotation)

Range of Motion	*Aperture*	*Overall Dimensions (inches)*	*Special Features*	*Model*
100 μm (XYZ) x 1.2 mrad x 1.5 mrad x 5mrad	1.378" diameter	6.0" x 7.5" x 1.3"	6 axis motion with aperture	Nano-Align6-100
200 μm (XYZ) x 2.3 mrad x 3.0 mrad x 5mrad	1.378" diameter	6.0" x 7.5" x 1.3"	6 axis motion with aperture	Nano-Align6-200

Micropositioning Stages - XY Axis

Range of Motion	*Step Size*	*Linear Encoder Resolution*	*Special Features*	*Model*
25 mm (XY)	NA	NA	Manual micrometers with 1um verniers	Manual MicroStage
up to 50mm (XY)	NA	NA	Allows rotation of microscope nosepiece	Manual MicroStage-LT
25mm (XY)	NA	NA	Designed for Olympus upright BX series	Manual MicroStage-BX
25 mm (XY)	95 nm (XY)	20 nm (XY)	Integrated high resolution linear encoder	MicroStage

Integrated Nanopositioning / Micropositioning Stages

MicroStage (XY) Ranges of Motion	*MicroStage Step Size (stepper motor) or Vernier (manual micrometer)*	*Nanopositioner (XY or XYZ) Ranges of Motion*	*Aperture Size*	*Model*
25mm single axis	95 nm step sizes with 20 nm position encoder	30 μm	None	Nano-SPMZ
25 mm (XY)	manual micrometers (XY) 10 μm graduations, 1 μm vernier	2-axis or 3-axis ranges up to 300 μm (XY) or (XYZ)	2.1" x 3.3"	Nano-View®/M Series
25 mm (XY)	95 nm step sizes (XY) with 20 nm position encoders (XY)	2-axis or 3-axis ranges up to 300 μm (XY) or (XYZ)	2.1" x 3.3"	Nano-View® Series

UHV (bakeable) Nanopositioners
Note: Nearly all standard systems can be modified for vacuum applications to 10^{-8} Torr if baking is not necessary.

Range of Motion	*Aperture*	*Overall Dimensions (inches)*	*Special Features*	*Model*
50 μm (XY)	1" diameter	2.5" x 2.5" x 1.29"	Vacuums to 10^{-10} Torr, bakeable to 120° C.	Nano-UHV50
100 μm (XY)	2.6" x 2.6"	5.5" x 5.5" x 1.12"	Vacuums to 10^{-10} Torr, bakeable to 120° C.	Nano-UHV100
200 μm (XYZ)	2.0" x 2.0"	5.3" x 7.5" x 1.4"	Vacuums to 10^{-10} Torr, bakeable to 100° C.	Nano-UHV200

Active Optics and Rotational Nanopositioners				
Range of Motion	Resolution	Overall Dimensions (inches)	Applications	Model
25 µm	0.05 nm	1.7" x 2.0" x 2.77"	Objective lens focusing element	Nano-F25HS
100 µm	0.2 nm	1.7" x 1.6" x 2.64"	Objective lens focusing element	Nano-F100S
100 µm	0.2 nm	2.2" x 1.7" x 3.05"	Objective lens focusing element	Nano-F100W
200 µm	0.4 nm	2.2" x 1.7" x 2.64"	Objective lens focusing element	Nano-F200S
200 µm	0.4 nm	2.2" x 1.7" x 3.05"	Objective lens focusing element	Nano-F200W
450 µm	0.9 nm	2.55" x 4.46" x 1.0"	Objective lens focusing element	Nano-F450
100 µm (XYZ)	0.2 nm	4.0" x 4.0" x 1.3"	3-axis objective lens motion	Nano-F3D
100 µm	0.2 nm	1.7" x 1.6" x 2.64"	Automatic microscope focus drift correction	C-Focus™
30 - 100 µm	0.06 - 0.2 nm	Variety of custom designs	High speed lens focusing elements	Nano-OP Series
2 mradian	4.0 nradian	1.0" diameter x 1.27"	High speed, single axis laser beam steering	Nano-MTA
5 mradian	10 nradian	1.0" diameter x 1.27"	High speed, single axis laser beam steering	Nano-MTAX
2 mrad x 2 mrad	4.0 nrad x 4.0 nrad	2.1" x 2.0" x 1.7"	High speed, 2-axis laser beam steering	Nano-MTA2
5 mrad x 5 mrad	10 nrad x 10 nrad	2.1" x 2.0" x 1.7"	High speed, 2-axis laser beam steering	Nano-MTA2X
2 mradian	4.0 nradian	2.0" x 1.25" x 0.5"	Single axis beam steering	Nano-Theta
5 mradian	10 nradian	5.0" x 5.0" x 0.5"	Rotational motion with aperture	Nano-ThetaH

Nano-View/M System
shown on inverted microscope