

ADC Products

DS SERIES

-High Precision Linear Stages-

June 2020



SPECIFICATIONS

ADC's linear slides are driven by a high quality preloaded ballscrew coupled to a high torque electric motor. Resolution requirements maybe met using a gearbox. Maximum rigidity is assured using high quality crossed roller linear bearings. Each slide also features two fully adjustable, normally closed mechanical limit switches to define the extents of travel.

MECHANICAL

Specification	210 Series	310 Series	410 Series	510 Series
Travel (mm)	30, 50, 75, 100	50, 100, 150, 200	75, 150, 225, 300	100 & 200
Lead Accuracy (um/25mm)	2.5	5	6	6
Trajectory Straightness (um/25mm)	2.5	4	5	5
Travel Resolution (mm/rev)	1	1	2	5
Maximum Speed (mm/sec)	50	25	40	100
Load Capacity (kg)	10.5	46	280	575

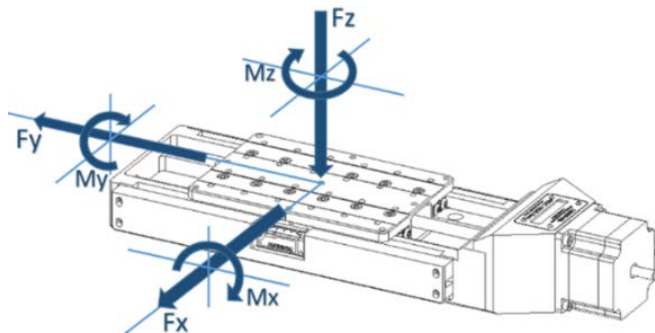
ELECTRICAL

Specification	DS210 Series	DS310 Series	DS410 Series	DS510 Series
Motor	2-Phase; 5-Phase Stepper; DC			
Limit Switches	Mechanical, Normally Closed			
Optical Encoder	Renishaw Tonic Series			

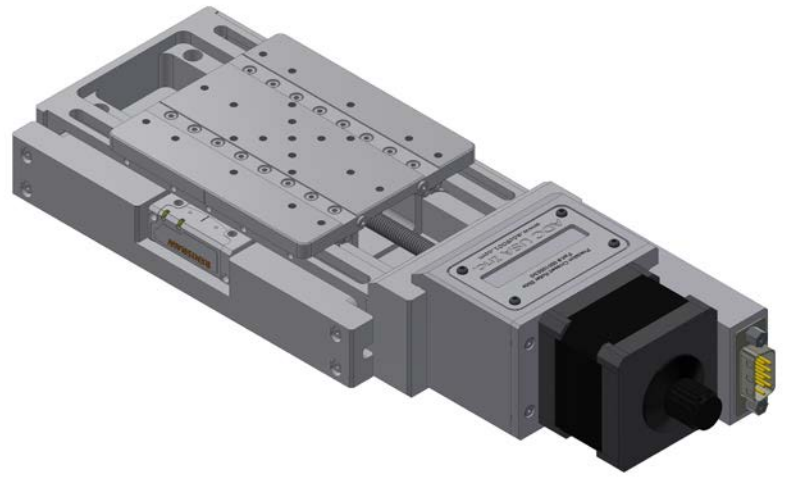
LOAD CHARACTERISTICS

Series	F _x (N)	F _y (N)	F _z (N)	M _x (Nm)	M _y (Nm)	M _z (Nm)
DS210	90	105	105	9.5	9.7	8.8
DS310	730	465	860	103	109	95.7
DS410	1675	1815	1973	260	400	230
DS510	9320	5760	10960	3150	3560	3360

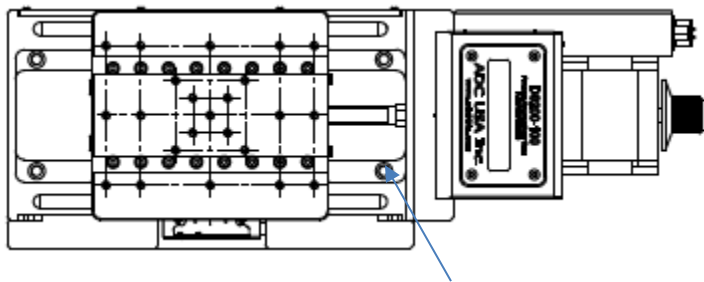
*Loads are not simultaneous



DS210

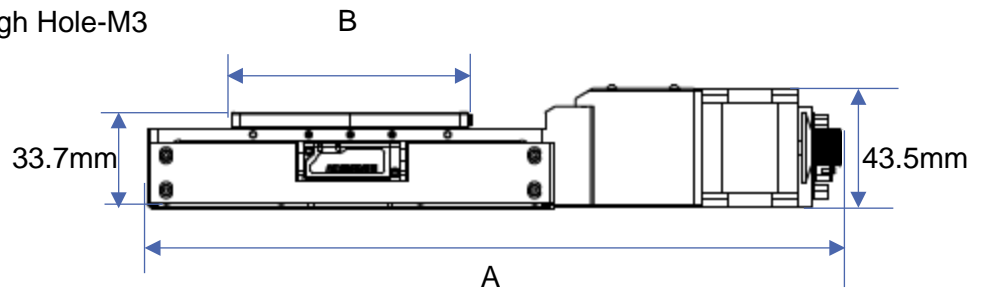


Top View

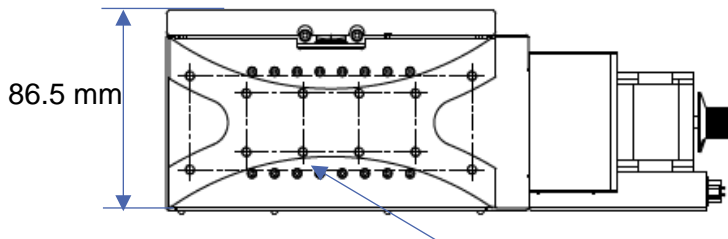


Mounting Through Hole-M3

Side View



Bottom View

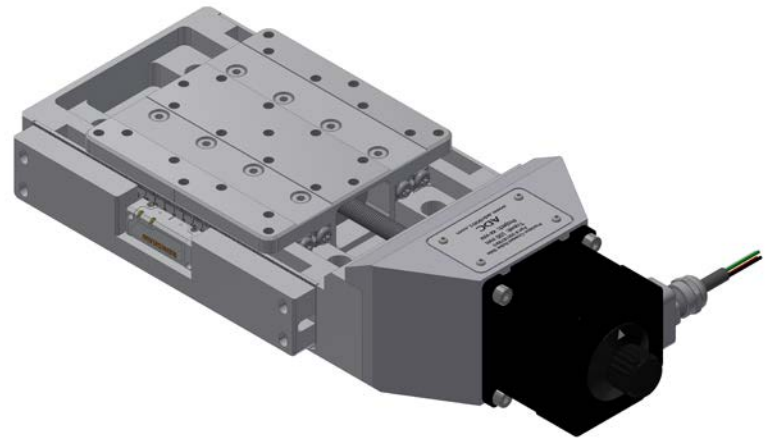


Tapped Hole-M4

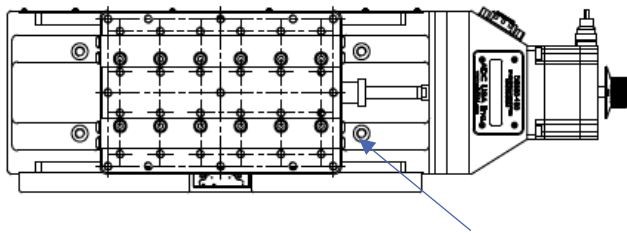
86.5 mm

Model	50	100	150	200
A- Total Length (mm)	202	252	302	352
B- Stage Length (mm)	55	85	105	135

DS310

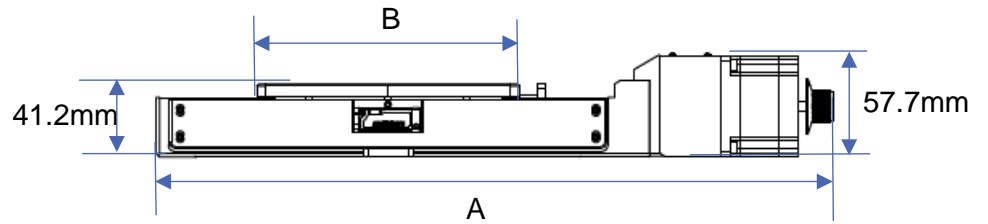


Top View

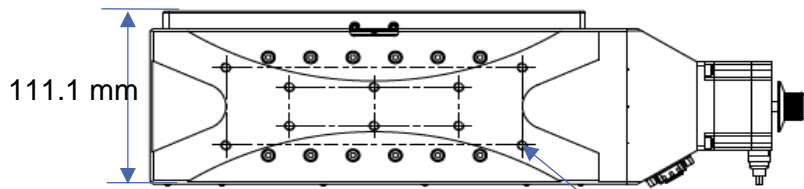


Mounting Through Hole

Side View



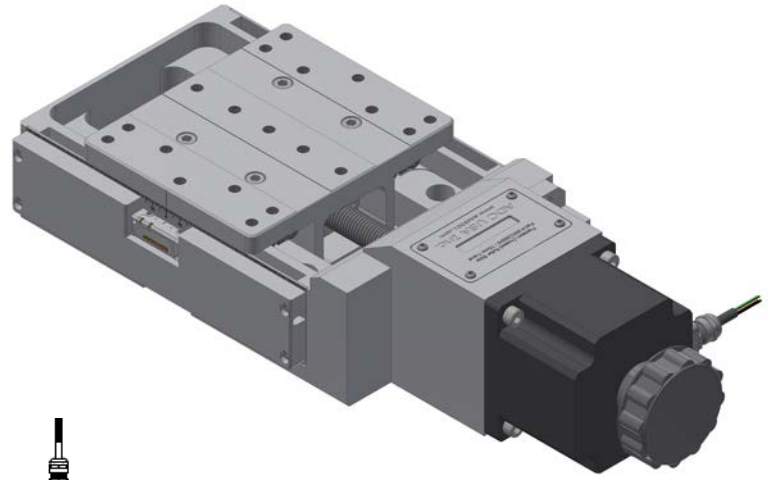
Bottom View



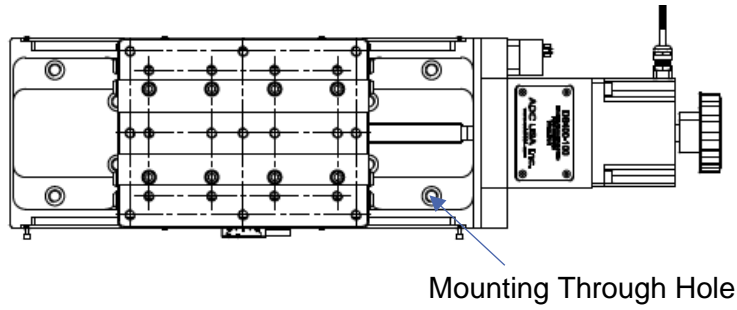
Tapped Hole-M6

Model	50	100	150	200
A- Total Length (mm)	283	387	483	587
B- Stage Length (mm)	100	150	200	250

DS410

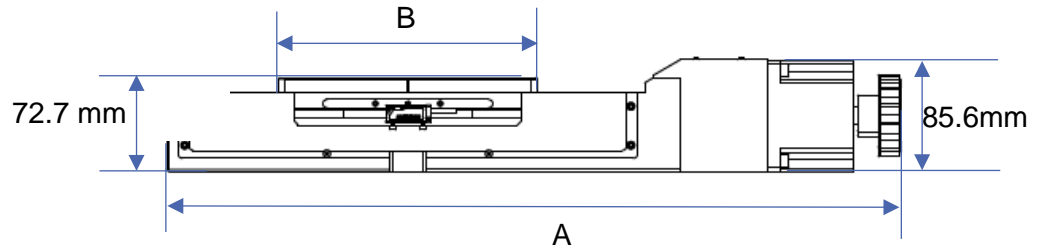


Top View

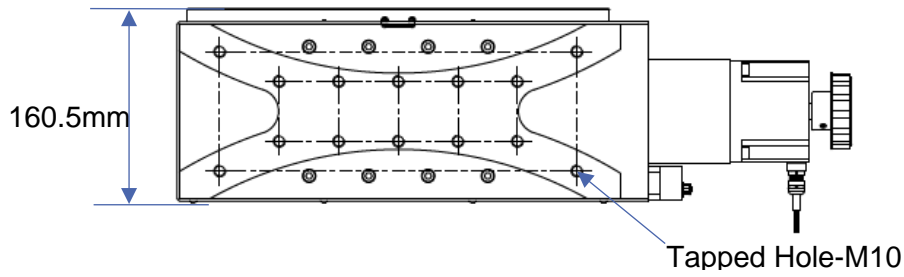


Mounting Through Hole

Side View



Bottom View

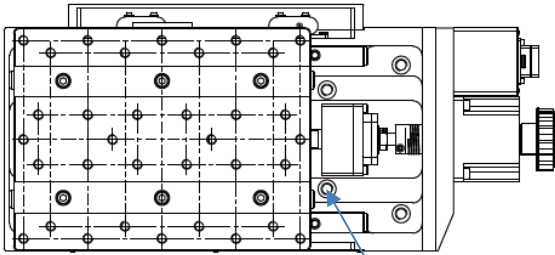


Tapped Hole-M10

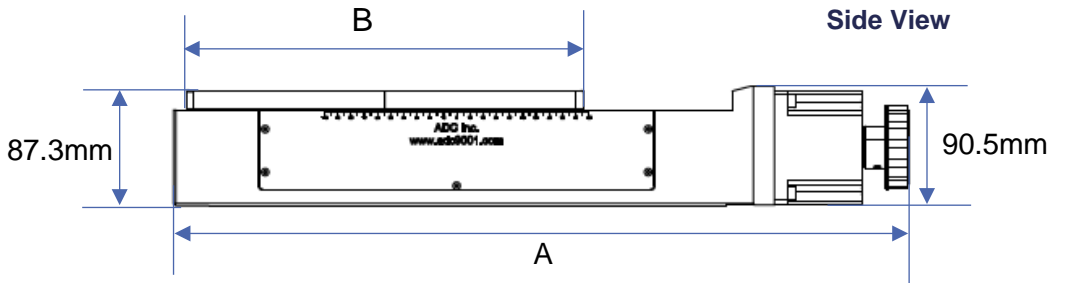
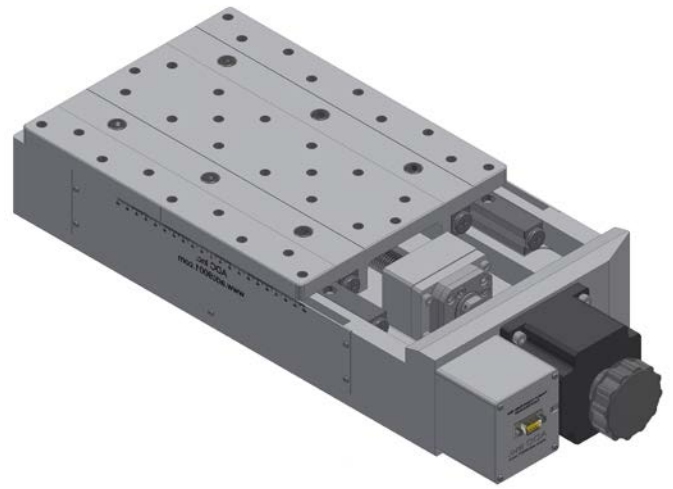
Model	75	150	225	300
A- Total Length (mm)	411	567	724	875
B- Stage Length (mm)	125	200	275	350

DS510

Top View

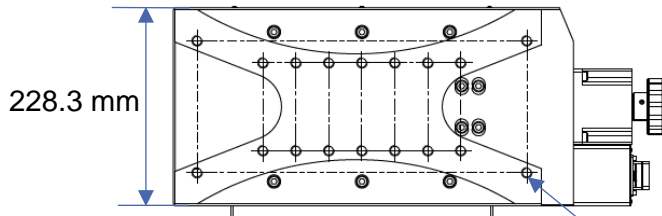


Mounting Through Hole



Side View

Bottom View



228.3 mm

Tapped Hole-M12

Model	100	300
A- Total Length (mm)	557	1066
B- Stage Length (mm)	300	600

ORDERING INFORMATION

Slides can be ordered with different configurations. Please use the codes provided below when ordering. Please call or e-mail to ask about any other customization required.

DS (Linear Slide)	210 Series	310 Series	410 Series	510 Series
Travel Options (mm)	-30 -50 -75 -100	-50 -100 -150 -200	-75 -150 -225 -300	-100 -200
Air Preparation Options	-A (Standard Air Stage) -V (Vacuum Stage; ask about options when placing order)			
Encoder Options	-E (With Encoder) -N (Without Encoder)			
Brake Options	-B (With Brake, 24VDC) -N (Without Brake)			
Motor Options	-2PH (Standard 2 Phase Bi-Polar Stepper Motor) -5PH (5 Phase Stepper Motor) -DC (DC Motor)			
Gearbox Option	-G (customer to enter desired ratio; 3:1 to 100:1 available)			

Example Order:

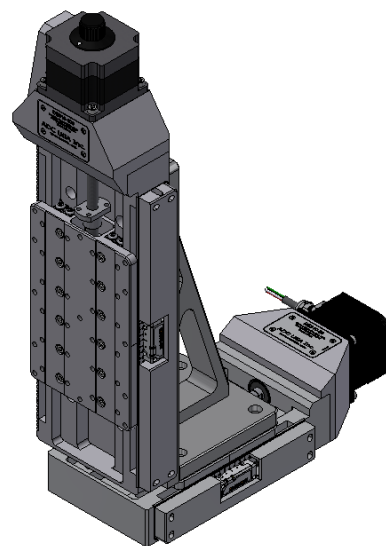
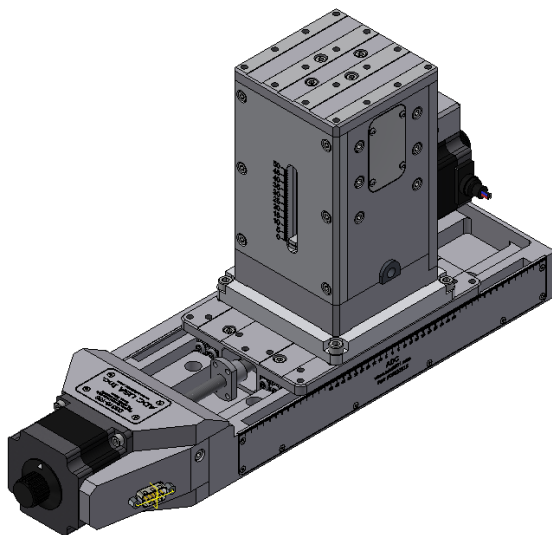
DS210-30-A-N-B-2PH

This is an order for a DS210 Precision Crossed Roller Slide with 30 mm travel, in air, with an encoder, with no brake, a 2-phase motor, and no gearbox.

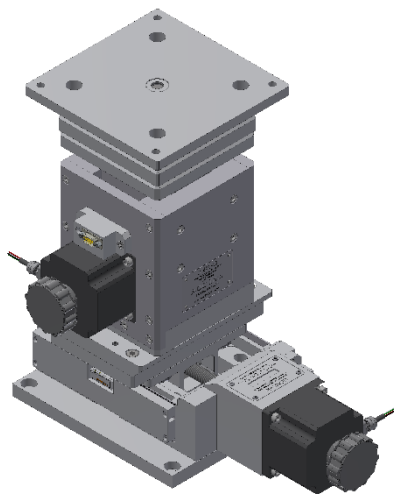
MOUNTING PLATES AND BRACKETS

The chart below shows the corresponding part number per slide and jack combination.

	Mounting Bracket				Mounting Plate
	DS210-30	DS210-50	DS210-75	DS210-100	DJ210-X
DS210-30	MB-200-1	MB-200-2	N/A	N/A	MP-200-6
DS210-50	MB-200-1	MB-200-3	N/A	N/A	MP-200-7
DS210-75	MB-200-1	MB-200-3	MB-200-4	MB-200-5	MP-200-8
DS210-100	MB-200-1	MB-200-3	MB-200-4	MB-200-5	MP-200-7
	DS310-50	DS310-100	DS310-150	DS310-200	DJ310-X
DS310-50	MB-300-1	MB-300-2	N/A	N/A	MP-300-5
DS310-100	MB-300-1	MB-300-2	N/A	N/A	MP-300-5
DS310-150	MB-300-1	MB-300-2	MB-300-3	MB-300-4	MP-300-5
DS310-200	MB-300-1	MB-300-2	MB-300-3	MB-300-4	MP-300-5
	DS410-75	DS410-150	DS410-225	DS410-300	DJ410-X
DS410-75	MB-400-1	MB-400-2	N/A	N/A	MP-400-5
DS410-150	MB-400-1	MB-400-2	N/A	N/A	MP-400-6
DS410-225	MB-400-1	MB-400-2	MB-400-3	MB-400-4	MP-400-7
DS410-300	MB-400-1	MB-400-2	MB-400-3	MB-400-4	MP-400-7



OTHER ADC STAGES



Linear Stages	Lift Stages
DS210	DJ210
DS310	DJ310
DS410	DJ410
DS510	BJ10
	BJ25
Tilt Stages/ Goniometers	Rotation Stages
TS-50	RS-100
TS-90	RS-200
TS-160	RS-300
TS-300	RS-400
TS-400	RS-500
TS-565	
TS-700	

