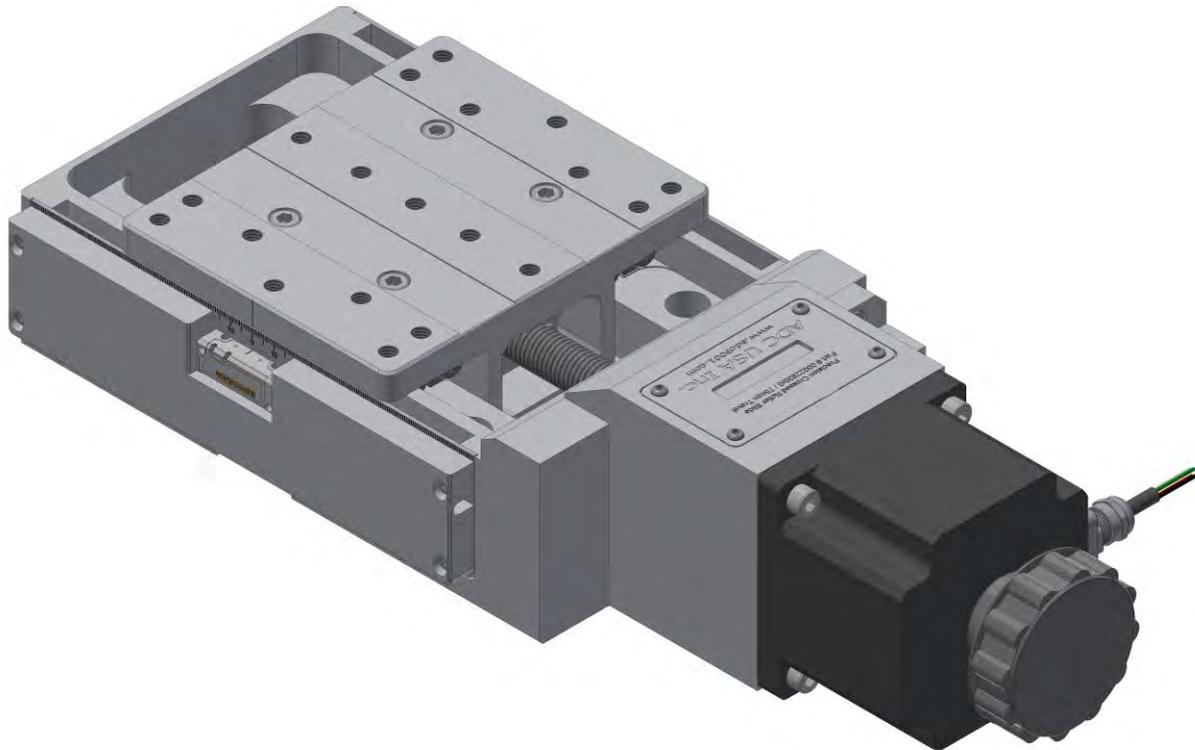


DS410 Series

Precision Mechanical Linear Stages



SUBMICRON ACCURACY

PRECISION GROUND BALL SCREW

PRELOADED CROSSED ROLLER BEARINGS

HIGH RESOLUTION AND REPEATABILITY

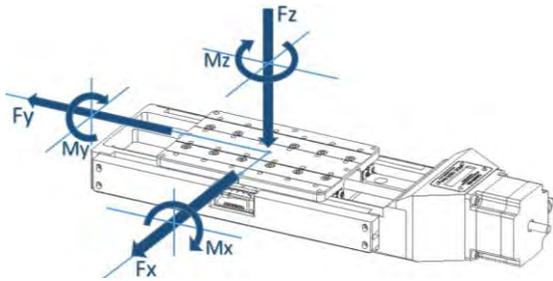
126 Ridge Rd, Lansing NY, 14882
www.adc9001.com

ADVANCED DESIGN
CONSULTING USA, INC.

1-607-533-3531
adc@adc9001.com

DS410 SERIES SPECIFICATIONS

The DS410 Series linear slides provide an accurate and rigid platform for use in any positioning system. The rugged anodized aluminum housing features a precision ground base and top plate, each with multiple utility holes for easy integration into the users' system. The stage is driven by a high class preloaded ball screw coupled to a high torque 200 step per revolution stepper motor which can be run in full, half, or micro stepping mode to meet your resolution requirements. Maximum rigidity is assured using preloaded crossed roller linear bearings. Each slide also features two fully adjustable, normally closed limit switches to define the extents of travel.



KEY FEATURES

- Travels 75-300mm
- 1 μm Repeatability
- Various Motor Options
- Load Capacity up to 280 kg
- Ultra-fine Resolution

LOAD CHARACTERISTICS

Description	F _x (N)	F _y (N)	F _z (N)	M _x (Nm)	M _y (Nm)	M _z (Nm)
DS410	1675	2815	1970	260	400	230

*Loads are not simultaneous

MECHANICAL

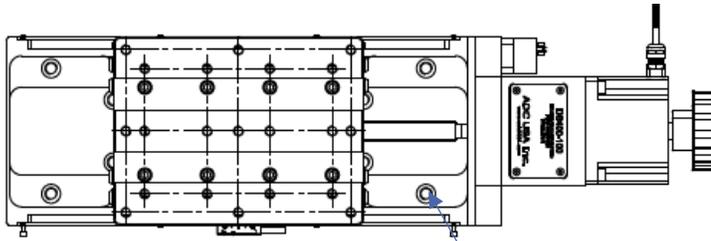
Description	75	150	225	300
Travel (mm)	75	150	225	300
Optional Linear Encoder	Yes	Yes	Yes	Yes
Repeatability (μm RMS)	1	1	1	1
Lead Accuracy ($\mu\text{m}/25\text{mm}$)	6	6	6	6
Trajectory Straightness ($\mu\text{m}/25\text{mm}$)	5	5	5	5
Ball Screw Lead (mm)	2	2	2	2
Maximum Speed (mm/sec)	50	50	50	50
Load Capacity (kg)	280	280	280	280
Mass (kg)	10	13.3	16	19.7

ELECTRICAL

Description	
Motor	2-Phase, 5-Phase Stepper; DC
Limit Switches	Mechanical, Normally Closed
Optical Encoder Type	Renishaw Tonic (http://www.renishaw.com)
2-Phase Current (Amps/Phase)	4.2

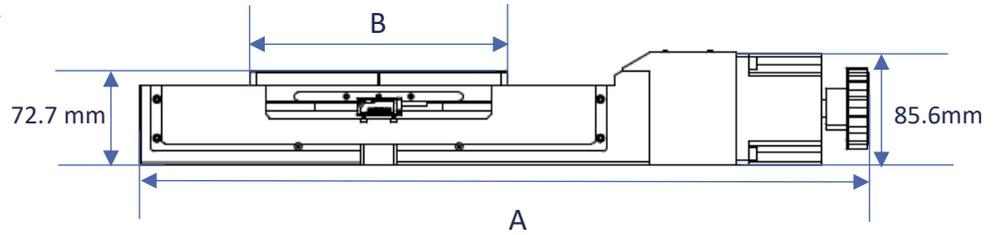
DS410 SERIES DIMENSIONS AND INFORMATION

Top View

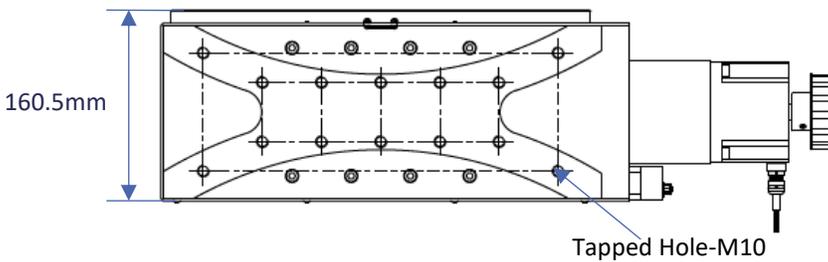


Mounting Through Hole-

Side View

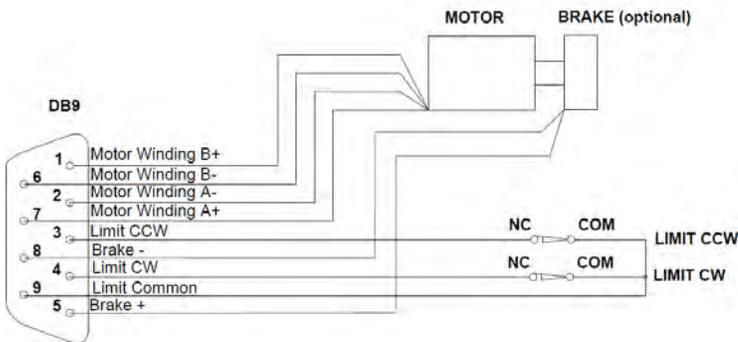


Bottom View



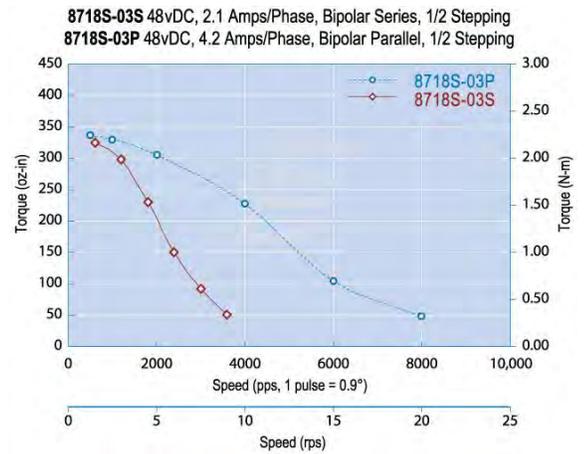
Model	75	150	225	300
A- Total Length (mm)	410.4	566.4	723.9	874.1
B- Stage Length (mm)	125	200	275	350

ELECTRICAL CONNECTOR



ADC uses a standard male DB-9 Connector for both the motor and limit switches.

2-PHASE MOTOR TORQUE GRAPH



DS410 ORDERING INFORMATION

DS410	-75	-A	-N	-B	-2PH	-G
Series	Model	Air Type	Encoder	Brake	Motor	Gearbox
	-75	-A	-E	-B	-2PH	3:1
	-150	-HV	-N	-N	-5PH	to
	-225				-DC	100:1
	-300					ratio

Travel Options

-75	75mm Stage Travel
-150	150mm Stage Travel
-225	225mm Stage Travel
-300	300mm Stage Travel

Air Preparation Options

-A	Standard Air Stage
-HV	High Vacuum Air Stage, 10^{-7} torr

Optical Encoder Options

-E	With Optical Encoder
-N	Without Optical 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

Available from 3:1 to 100:1 ratios

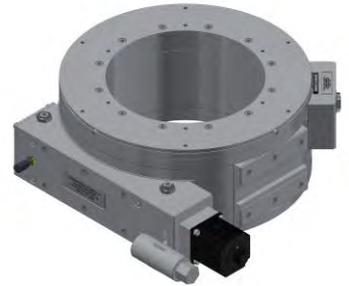
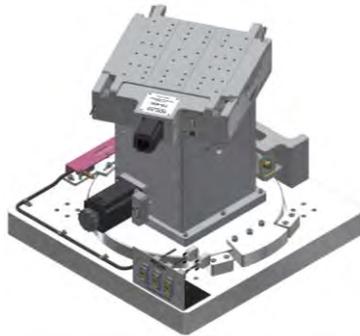
Example Order

DS410-75-A-N-B-2PH

This is an order for a DS410 Precision Crossed Roller Slide with 75 mm travel, in air, with no encoder, with a brake, and a 2-phase motor.



Similar ADC Products



Linear Stages	Lift Stages
DS210	DJ210
DS310	DJ310
DS410 (Shown)	DJ410
DS510	
Tilt Stages/Gonimeters	Rotation Stages
TS-50	RS-100
TS-90	RS-200
TS-160	RS-300
TS-300	RS-400
TS-400	RS-500
Mounting Brackets	Big Jacks
MB200	BJ25-50
MB300	BJ25-100
MB400	BJ25-150
	BJ25-200

Custom Complex Motion Systems

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