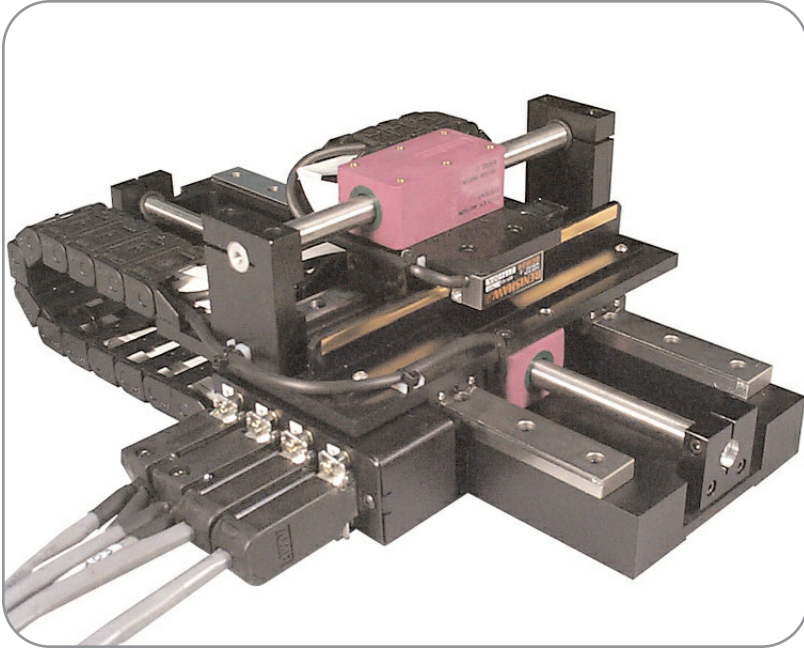


Mini X - Y Linear Motor Positioning Stage

Compact Precision Linear Positioner



ABTech, Inc's **Mini X-Y Linear Motor stage** combines Copley Controls, Thrust Tube "Micro" Series linear motors with non-contact linear encoders and precision mechanical guideway bearings to produce a unique lightweight, low mass and low profile, linear motor positioning stage.

This design incorporates the linear motors coil (forcer) as the stages workholding carriage while the linear mechanical guideway bearings provide load support, travel straightness and orthogonality for accurate positioning and repeatability.

The Thrust Tube Linear motors are electrically identical to conventional brushless DC motors making them compatible to most third party brushless drives.

These mini X-Y stages are ideally suited for pick and place or point to point positioning applications such as for biomedical sample handling or inspection.

ABTech's modular design approach and full engineering services can respond quickly to provide a solution to your O.E.M. needs for Ultra-Precision linear motion.

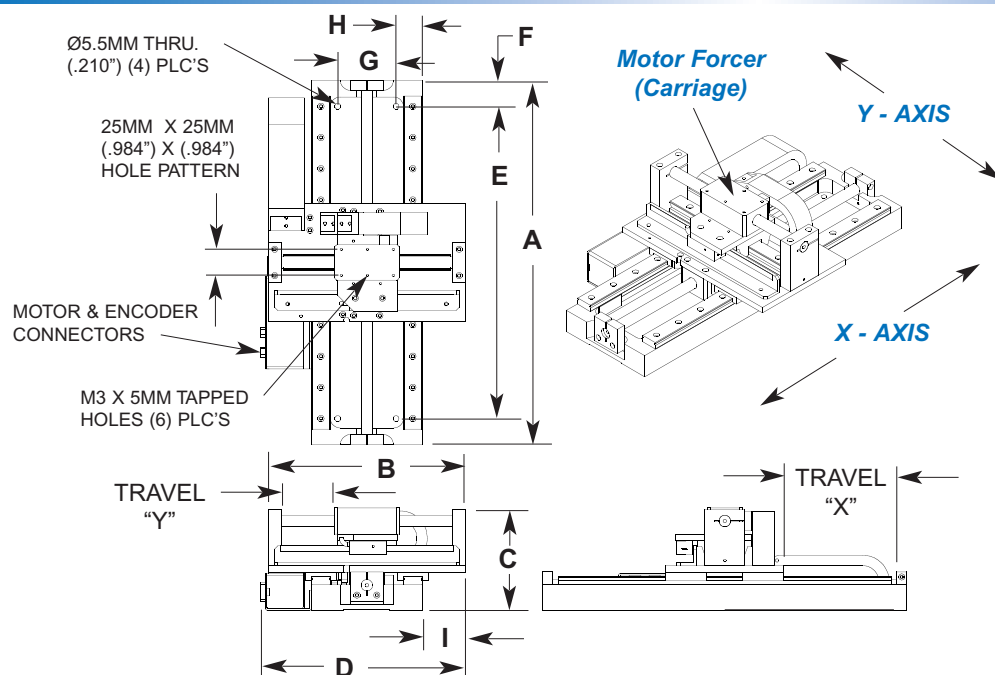
Features:

- Thrust Tube "Micro" Series Brushless DC linear motors
- Precision linear mechanical guideway bearings
- Non-contact linear encoders
- Position accuracy & repeatability: $\pm 0.000080"$ ($\pm 2.0\mu\text{m}$)
- Motor drive amplifiers
- Motion controllers
- Custom bases
- Complete turn-key systems
- Modular design

Specifications

Mini X-Y

Precision Linear Motor
Positioning Stage



Consult ABTech for:

- Special sizes and travels
- Special tooling and fixturing for work piece handling
- Servo drive amplifiers
- Multi-axis motion controllers
- Complete turn key systems with machine bases and operator interface.

Dimensions

TRAVEL "X"	200mm (8.0")
TRAVEL "Y"	100mm (4.0")
A	349.76mm (13.77")
B	190mm (7.48")
C	98.59mm (3.88")
D	196.94mm (7.75")
E	300mm (11.81")
F	24.88mm (0.980")
G	25.18mm (0.991")
H	56mm (2.205")
I	41.81mm (1.65")

Performance

Position repeatability:	±2.0µm (±80µ")
Position accuracy:	±2.0µm (±80µ")
Speed:	100+ mm/s
Encoder resolution:	0.5µm (standard) 0.2µm or 0.1µm available

Motor:

Peak force:	38.3N
Continuous force:	8.3N
Peak acceleration:	290 m/s/s
Peak velocity:	10.1m/s
Thrust block mass (forcer):	132g
Forcer size:	62mm x 34mm x 25mm
Continuous working voltage:	50 VDC

Slide performance can be effected by method of mounting and loading. Consult ABTech's applications engineering.
Specifications are subject to change without notification.

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Pride In Precision
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