

NATIONAL APERTURE, INC.

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Motorized Stages

MM-3M-ST Linear

Standard Motorized MicroMini™ Stages

FEATURES

- ❖ 3D models available
- ❖ Built-in connectivity with all MM-3 MicroMini™ Stages
- ❖ Fully English/Metric compatible (all taps and clearance holes)
- ❖ Low Profile



[View Schematic](#)

When ordering multi-axis units the completed assembly will include all necessary braces, kits and hardware

GENERAL DATA:

- ❖ **Moment Load capacity:** 6 to 9 oz-in
- ❖ **Linear Travel:** 12.7 mm
- ❖ **Table Speed:** 1.6 mm/sec
- ❖ **Body Size:** 113.8 x 19.1 x 9.1 (mm)
- ❖ **Weight:** 50 grams

GENERAL PRECISION:

- ❖ **Repeatability:** 4 µm
- ❖ **Accuracy:** 6 µm/25.4 mm
- ❖ **Slider Backlash:** 0 (spring preloaded)

Product Selector

NOTE: If viewing on a cell phone, landscape mode is recommended.

SELECT AXIS

Select Speed /Resolution Vacuum Compatibility

Qty:

Speed/Resolution	Max. Travel Rate	Resolution	GH Ratio	TPI
SPRS3	3.3073 mm/sec	0.2481 µm/count	64:1	40
SPRS4	1.6536 mm/sec	0.1240 µm/count	64:1	80

[Click here for accessories](#)

3D models available

your email required

Specifications: MM-3M-ST

- *Repeatability:** 4 µm
- *Homing Repeatability:** 4 µm
- *Accuracy (linearity):** 6 µm/25.4 (mm)
- Speed (for standard gearhead ratio):** 1.6 mm/sec max @ 12 V with 64:1 gearhead
- Slider Backlash:** 0 (spring loaded)
- Encoder Conversion (resolution):** 0.12406 µm per count with 64:1 gearhead ([view resolution data sheet](#))
- Wobble (max):** 20 µrad
- Screw Pitch:** 0.3175 mm (80 TPI) or 0.635 mm (40 TPI)
- Linear motion per turn:** 0.3175 mm (80 TPI) or 0.635 mm (40 TPI)
- Runout (max):** 2 µm
- Gearhead Backlash:** 1-2 µm equivalent; can be compensated in software without overshoot
- Motor:** 10 mm diameter, 6-12 Vdc servo, brush type ([see Motor Specifications](#))
- Load Capacity**
 - *Direct top or side load:** 0.23 kg (8.0 oz)
 - **Return:** 0.23 (8 oz) to 0.96 kg (34 oz)
 - *Pitch:** 9.5 oz-in (67 mNm)
 - *Roll:** 8 oz-in (56 mNm)
 - *Yaw:** 6.5 oz-in (45 mNm)

Shopping Cart

Items List

Part	Qty	Price	Subtotal
Total: \$0.00			
clear items			



[Download Catalog](#)

Motorized Stages

- [MM-1M Linear](#)
- [MM-3M-ST Linear](#)
- [MM-3M-FOS Linear](#)
- [MM-3M-F Linear](#)
- [MM-4M-F Linear](#)
- [MM-4M-EX Linear](#)
- [MM-5M Linear](#)
- [MM-3M-R Rotary](#)
- [MM-4M-R Rotary](#)
- [MM-3M-G Goniometer](#)
- [MM-4M-G Goniometer](#)

**These stages may be run at twice the specified ratings without damage, but with a loss of accuracy and speed.*

***Retract is limited by the preload spring.*

Travel Ranges & Dimensions

Model No.	Travel Range	Stage Body (L x W x H)	Weight
MM-3M-ST-X-TR1	12.7 (mm)	113.8 x 19.1 x 9.1 (mm)	50 g
MM-3M-ST-XY-TR1 (2 axis)	12.7 (mm)	113.8 x 113.8 x 18.3 (mm)	100 g

The information contained on this website is subject to change without notice. Critical dimensions or specifications should be verified with our technical support staff.

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