

MM-3M-EX

Extended Motorized
MicroMini™ Stages
(For extended travel)



Specifications:

	Standard Slider	AB Slider (anti-backlash)
*Repeatability:	±2µm	±0.5µm
*Homing Repeatability:	±2µm	±0.5µm
*Accuracy (linearity):	±3µm	±1.5µm
Speed, no load (max.):	12mm/second @ 12V	3mm/second @ 12V
†Slider Backlash:	50µm	3µm
Encoder Conversion (resolution): (See also: gearhead options)	0.49609µm per count with 16:1 gearhead	0.12406µm per count with 64:1 gearhead

*Encoder resolution must be added, based on the gearhead: 16:1 add ± 0.5µm, 64:1 add ±0.12 µm

†Slider backlash represents maximum overshoot

Runout (max.):	3µm/25.4mm (1 inch)
Gearhead Backlash:	1-2µm equivalent; can be compensated in software without overshoot
Motor:	10 mm diameter, 6-12 VDC servo, brush type (see motor specifications)
Wobble (max.):	20 µrad (~ 4 arc-second)
Vacuum compatibility:	10 ⁻³ Torr, standard, 10 ⁻⁶ Torr available

Load Capacity:

Direct top or side load:	0.5 kg
Push:	0.5 kg
Pull:	0.5 kg
Tilt:	8 inch-ounce (560 gram-centimeter)
Twist:	4 inch-ounce (280 gram-centimeter)

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

Travel Ranges and Dimensions:

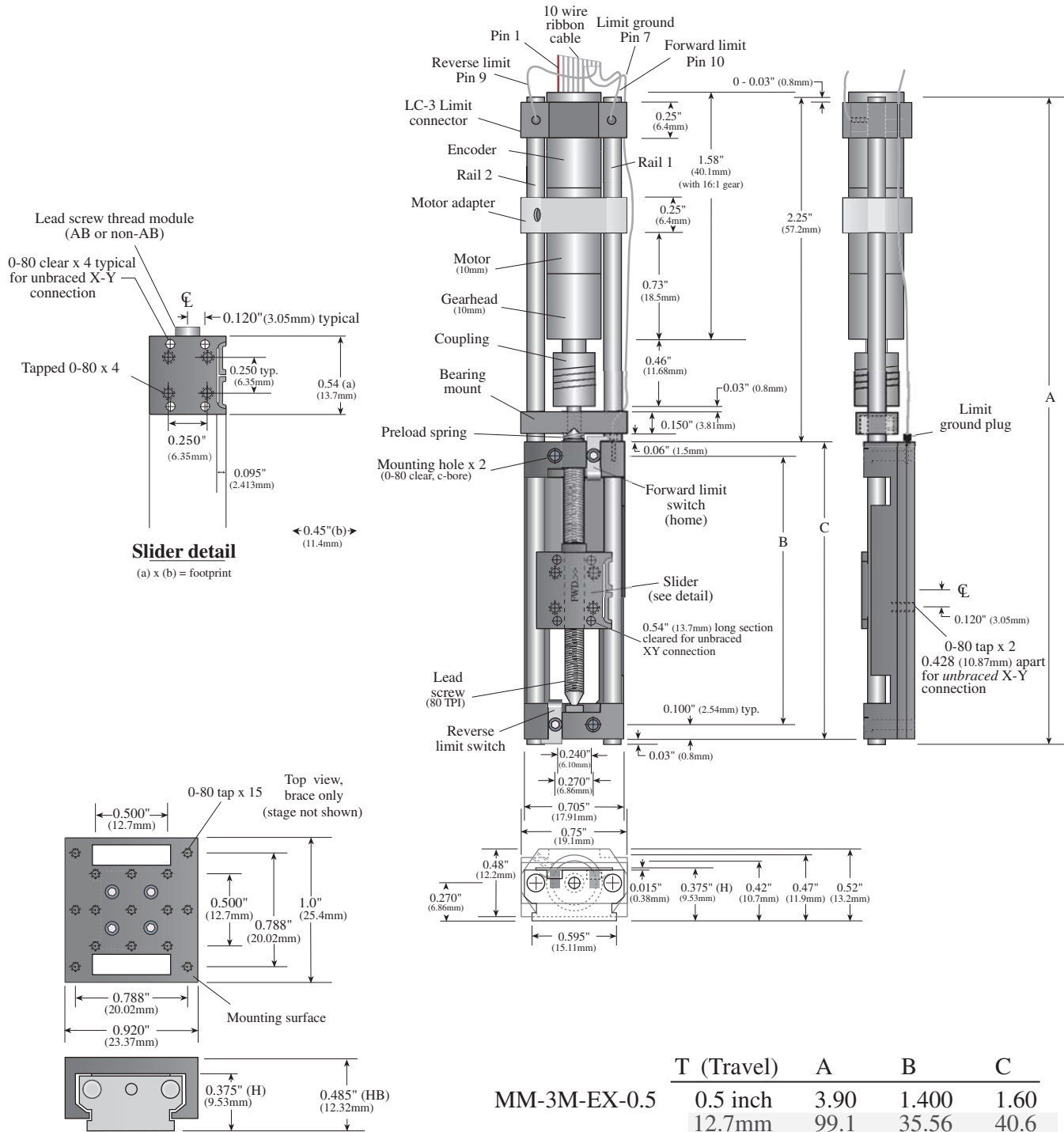
Model No.	Travel Range	Stage Body (L x W x H)	Weight
MM-3M-EX-0.5	12.7mm	99.1 x 19.1 x 9.1 (mm)	53g
	0.5 inch	3.90 x 0.75 x 0.36 (inch)	53g
MM-3M-EX-1	25.4mm	111.8 x 19.1 x 9.1 (mm)	58g
	1.0 inch	4.40 x 0.75 x 0.36 (inch)	58g
MM-3M-EX-1.5	38.1mm	124.5 x 19.1 x 9.1 (mm)	63g
	1.5 inch	4.90 x 0.75 x 0.36 (inch)	63g
MM-3M-EX-2	50.8 mm	137.2 x 19.1 x 9.1 (mm)	68g
	2.0 inch	5.40 x 0.75 x 0.36 (inch)	68g

Specify -AB for Anti-Backlash

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

Folded **MM-3M-EX** Motorized MicroMini Stage™ - 0.5 to 2 inch Travel

Dimensional Data



Note:
Single axis brace is essential where attachments are vulnerable to crash.

BR-3M-X Optional Crash-resistant Slider Brace

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

National Aperture, Inc. - 16 Northwestern Dr. - Salem, N.H. 03079-4810 - Tel. (800) 360-4598 - (603) 893-7393 - FAX (603) 893-7857 - www.nationalaperture.com/www.naimotion.com