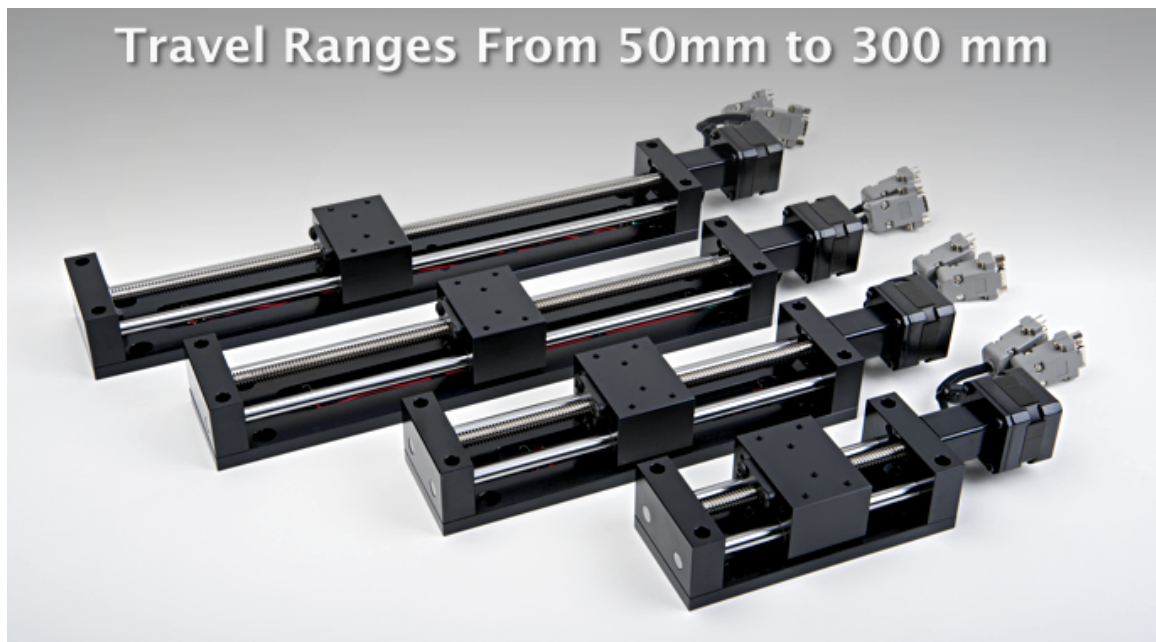


eTrack SERIES

LINEAR STAGE



The eTrack linear stages are designed for a variety of applications in research & development, automation, and other industrial areas requiring quick positioning of light payloads.

The eTrack offers travel lengths from 50mm to 300mm and two lead screw pitches: 2mm & 12mm. The eTrack comes standard with a high torque size 17 stepper motor end of travel limit switches. The limit switch and motor cables are terminated by a 9 pin connector near the rear of the stage next to the motor.

The drive system utilizes a stainless steel ACME lead screw with internally lubricated plastic drive nut. The drive nut offers zero backlash operation that automatically adjusts for wear to insure zero backlash for the life of the stage.

The eTrack is available as an XY linear stage.

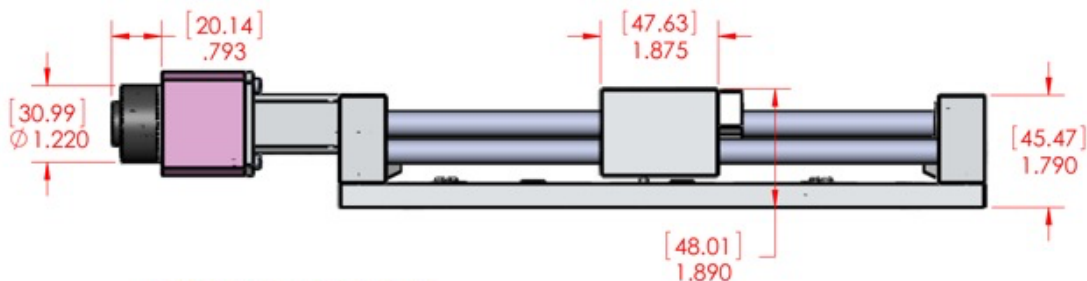
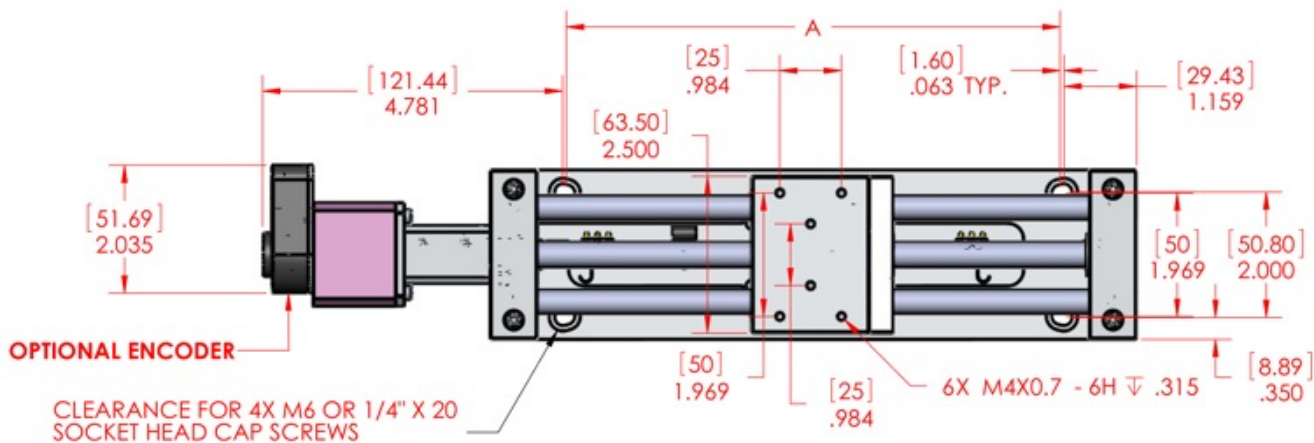
Please note: The eTrack is not available in travel lengths greater than 150mm for XY and XYZ configuration.

All eTrack linear stages are machined from 6061 aluminum alloy and black anodized.

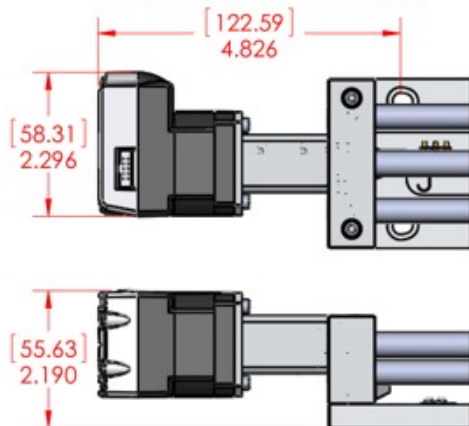
Specifications

Travel Range	50 mm, 100 mm, 150 mm, 200 mm, 250 mm, 300 mm
Resolution	0.04 μm (2 mm pitch lead screw) 0.24 μm (12 mm pitch lead screw)
Accuracy	0.0006 mm/mm of travel
Max. Speed	25 mm/sec (2 mm pitch lead screw) 100 mm/sec (100 pitch lead screw)
Unidirectional Repeatability	10 μm
Bidirectional Repeatability	30 μm
Maximum Load	4.5 kg (10 lbs)
Encoder	Optical rotary encoder mounted to read of motor, 4000 CPR with index (Optional)
Limit Switches	Mechanical
Lead Screw Pitch	2 mm and 12 mm options
Stage Weight	ET-50: 1.1 kg (2.5 lbs), ET-300: 1.6 kg (3.5lbs)
Material	Aluminum Alloy Construction
Finish	Black Anodize

Dimensions



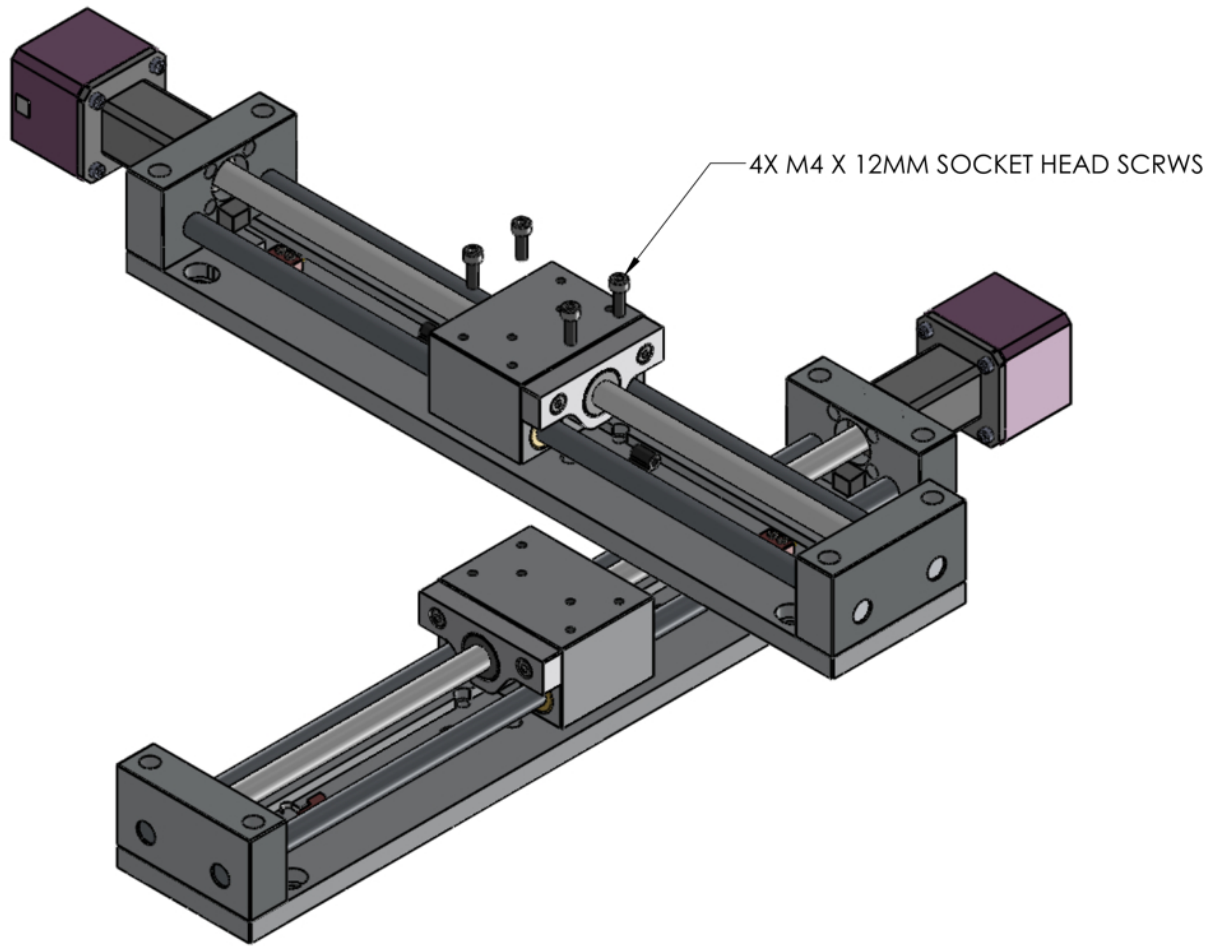
MDRIVE MOTOR OPTION



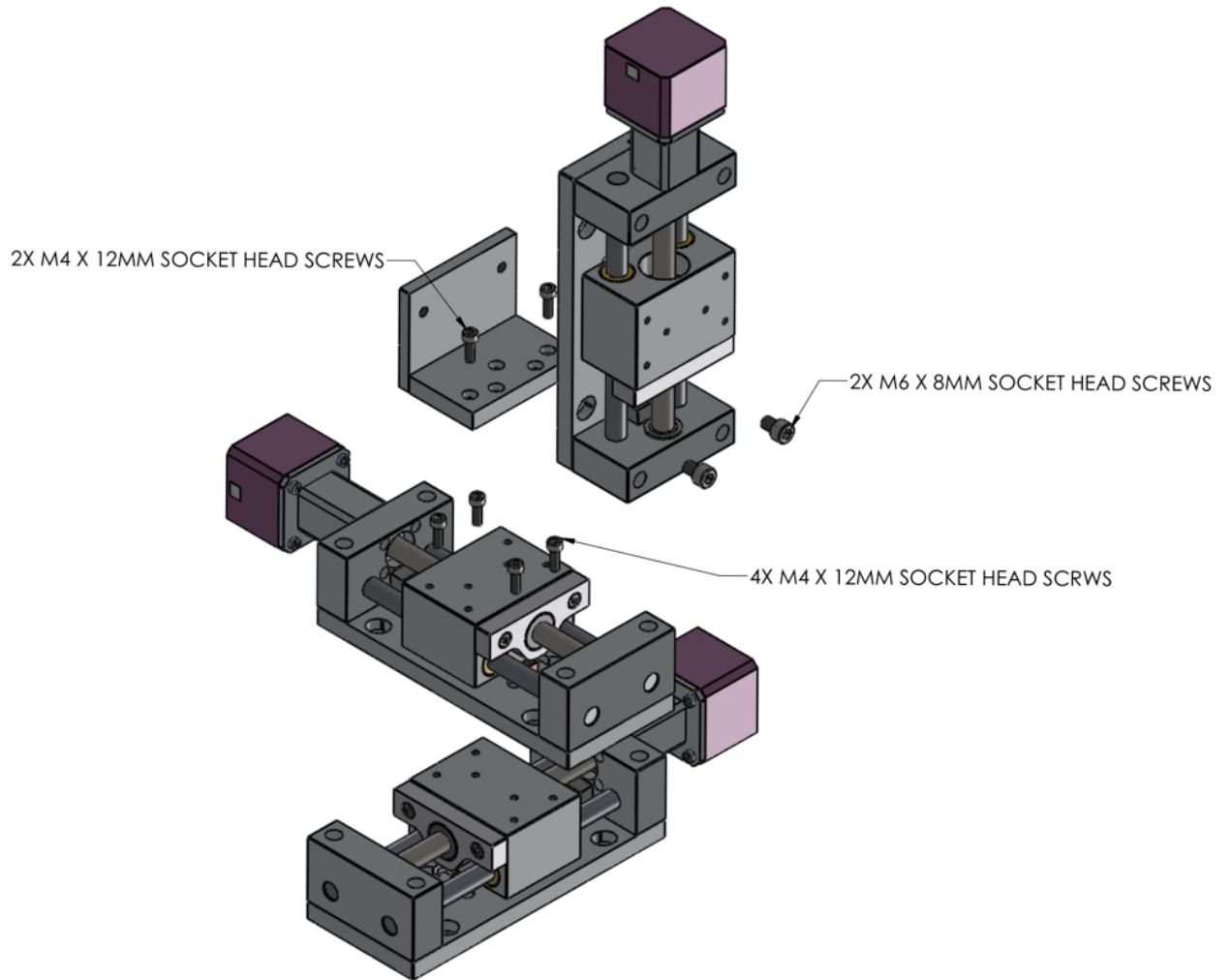
TRAVEL	DIMENSION "A"
50	[100] 3.937
100	[150] 5.906
150	[200] 7.874
200	[250] 9.843
250	[300] 11.811
300	[350] 13.780

[mm]
in

eTrack XY (50mm to 150mm)



eTrack XYZ (50mm to 150mm)



Standard Stepper Motor Version

Motor

DB-9 Male	Description
1.	Phase A
2.	Phase A Center
3.	Phase B
4.	Phase B Center
5.	Phase A'
6.	Phase B'

Motor Specifications

Step Size: 1.8°/step

Amps/Phase: 0.95

Resistance: 4.0 Ohm/Phase

Inductance: 3.1 mH/Phase

Signals

DB-9 Female	Description
1.	+ Limit Switch
2.	- Limit Switch (motor side)
3.	Limit Switch Ground

Limit switch wired normally closed

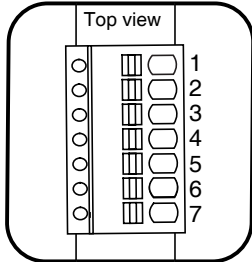
Signals (Encoder Option)

HD-15 Female	Description
1.	+ Limit Switch
2.	- Limit Switch
3.	Limit Switch Ground
4.	Encoder Ground
5.	+5V Encoder Power
6.	Ch. A
7.	Ch. A-
8.	Ch. B
9.	Ch. B-
10.	Index +
11.	Index -

Limit switch wired normally closed

Pin Assignment

MDrive Stepper Motor Version



7-Pin Pluggable Terminal

Power and I/O

7-Pin Terminal	Description
1	I/O 1
2	I/O 2
3	I/O 3
4	I/O 4
5	Analog Input
6	Power GND
7	+24V Motor Power

The forward limit switch is connected to I/O 1.
The reverse limit switch is connected to I/O 2.
Limit switches are wired normally closed.

RS-422 Communications

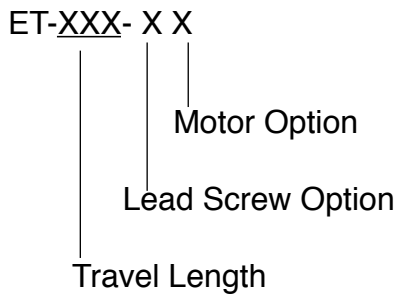
10-Pin IDC	Description
1	TX+
2	TX-
3	RX+
4	RX-
5	Aux-Logic
6	RX+
7	RX-
8	TX-
9	TX+
10	COMM GND

Connected to 7-Pin Terminal

DC Jack, 2.1 mm	Description
Center	+24 VDC
Outside	Power Ground

Ordering Information

Part Number Configuration



Travel Length

- 50 mm
- 100 mm
- 150 mm
- 200 mm
- 300 mm

Lead Screw Options

- 1 2 mm lead
- 2 12 mm lead

Motor Options

- 1 Stepper Motor
- 2 Stepper Motor with Encoder
- 4 MDrive Motor with Encoder

Motion Controllers

The following Newmark Systems, Inc. controllers are compatible with the eTrack Stage.

[NCS-A1 Series](#) | [NSC-A2L Series](#) | [NSC-G Series](#)