

# MotorDriver™ Linear Actuators

- Four travel ranges 10 mm, 13 mm, 25 mm, and 50 mm
- Open loop sub-micrometer motorized control
- Two speed operation



Optics

Lenses

Mirrors & Beamsplitters

Prisms & Polarizers

Filters

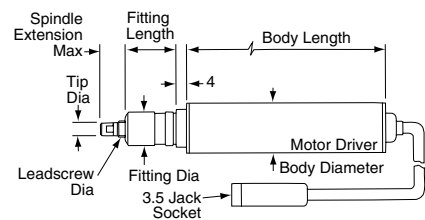
Pinholes

MotorDriver Actuators are available with travel ranges of 10 mm, 13 mm, 25 mm, and 50 mm (0.375 inch, 0.5 inch, 1 inch, and 2 inches) to suit the various micrometer-driven stages from the MicroMech™ MiniMech™ and MacroMech™ ranges. The 10 mm travel unit is miniaturized to have a body diameter of only 12.7 mm (0.5 inch). Longer travel units are still compact for motorized drivers at 19 mm (0.75 inch) diameter.

The 10 mm miniature Actuator is fitted with a spherical tip that is not interchangeable. All others feature interchangeable spherical or flat tips, both are supplied with the units.

Each MotorDriver Actuator requires its own Hand Control Unit, these are described on the following pages.

Dimensions and specifications for the MotorDriver Actuators range are given below.



MotorDriver™ Specifications	10 mm 37-0221	13 mm 37-0007	25 mm 37-0015	50 mm 37-0023
Leadscrew Pitch (mm):	0.5	0.5	0.5	0.5
Motor Speed (rpm-without load):	14,750	15,000	15,000	15,000
Gearhead ratio:	256:1	485:1	485:1	485:1
Max. Linear Speed <sup>1</sup> (mm/min – without load):	28	15	15	15
Slowest Speed (mm/min):	0.05	0.03	0.03	0.03
Resolution (µm):	0.1	0.1	0.1	0.1
Max. continuous output torque (Nm x 10 <sup>-3</sup> ):		50	50	50
Max. intermittent output torque (Nm x 10 <sup>-3</sup> ):	77	100	100	100
Nominal motor voltage (VDC)	12	12	12	12
Max. output power (W):	0.35	0.5	0.5	0.5
Max. recommended axial load <sup>2</sup> (kg/lb):	7(15)	10(22)	10(22)	10(22)
Backlash – typical (µm):	6	6	6	6
Weight (g):	50	80	100	120

<sup>1</sup> Rating for intermittent operation. <sup>2</sup> Axial load rating is with point contact on leadscrew spindle tip.

Opto-mechanics

Breadboards & Rails

Mounting Hardware

Mirror & Component Mounts

Manual Micro Positioners

Motorized Positioners

## MotorDriver™ Linear Actuators

Catalog Number	Driver Type	Travel (mm)	Spindle Extension	Fitting Length	Fitting Dia.	Body Dia.	Body Length	Tip Dia.	Leadscrew Dia.
37-0221	DC Motor	10	11	6.0	6.00	12.7	78	4	4
37-0007	DC Motor	13	19	9.5	9.52	19.05	78	5	6
37-0015	DC Motor	25	31.75	19.05	12.70	19.05	90	5	6
37-0023	DC Motor	50	56.75	19.05	12.70	19.05	117	5	6
37-9701	DC Motor	10	19	9.5	9.0	19.05	78	5	6
37-9669	DC Motor	25	31.75	19.05	9.52	19.05	90	5	6
37-9677	DC Motor	50	56.75	19.05	9.52	19.05	117	5	6