

EncoderDriver™ Linear Actuator Packages

Optics

Lenses

Mirrors &
Beamsplitters

Prisms &
Polarizers

Filters

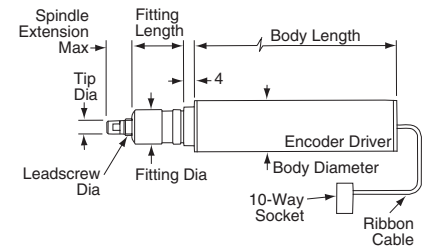
Pinholes

- **Closed loop motorized remote control of micropositioners**
- **Computer control of stages**
- **LabView software drivers**
- **0.05 or 0.02 μm minimum incremental movement**
- **Direct replacement for manual micrometers**



EncoderDriver Linear Actuator Packages are available with ranges of travel of 10 mm, 13 mm, 25 mm, and 50 mm (0.375 inch, 0.5 inch, 1 inch, and 2 inches) to suit micrometer-driven stages from the Ealing range. The 10 mm Actuator is supplied with a non-removable spherical tip, all others are supplied with interchangeable spherical

and flat tips. Each EncoderDriver Actuator Package includes an EncoderDriver Actuator, a 3 m Extension Cable, and the daughter board drive module. This daughter board drive module plugs directly into the EncoderDriver Control Cards. EncoderDriver Actuators are available separately for OEM applications.



Opto-mechanics

Breadboards &
Rails

Mounting
Hardware

Mirror &
Component
Mounts

Manual
Micro
Positioners

Motorized
Positioners

EncoderDriver™ Specifications

	Travel			
	10 mm	13 mm	25 mm	50 mm
Leadscrew Pitch (mm):	0.5	0.5	0.5	0.5
Max. Motor Speed (rpm-without load):	13,000	12,000	12,000	12,000
Gearhead Ratio:	256:1	485:1	485:1	485:1
Max. Linear Speed1 (mm/min – without load):	28	12	12	12
Slowest Speed (mm/min):	0.05	0.03	0.03	0.03
Resolution (μm):	0.05	0.02	0.02	0.02
Max. Continuous Output Torque (mNm):	77	100	100	100
Max. Intermittent Output Torque (mNm):	77	150	150	150
Nominal Motor Voltage (VDC)	12	12	12	12
Max. Output Power (W):	0.35	0.3	0.3	0.3
Max. Recommended Axial Load2 (kg/lb):	7(15)	10(22)	10(22)	10(22)
Backlash – Typical (μm):	6	6	6	6
Encoder Counts per Revolution of Motor:	40	60	60	60
Encoder Counts per millimeter of Travel:	20,480	58,200	58,200	58,200
Repeatability – Unidirectional (μm)	0.1	0.1	0.1	0.1
Weight (g):	55	110	130	150

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

EncoderDriver™ Socket Pin-outs

Pin	Socket Pin-outs
1	Motor + (12 VDC)
2	Encoder Power (+5 VDC)
3	Encoder A Channel
4	Encoder B Channel
5	Encoder Ground (0 VDC)
6	Motor - (12 VDC)

EncoderDriver™ OEM Actuators

Catalog Number	Travel (mm)	Price US
37-1187	10	\$871.50
37-1179	13	\$876.75
37-1062	25	\$805.35
37-1070	50	\$937.65

EncoderDriver™ Linear Actuator Packages (includes actuator, daughter board and cables)

Catalog Number	Driver Type	Travel (mm)	Spindle Extension	Fitting Length	Fitting Dia.	Body Dia.	Body Length	Tip Dia.	Leadscrew Dia.	Price US
37-0494	DC Motor	10	11	6.0	6.00	12.7	86	4	6	\$1,268.40
37-0486	DC Motor	13	19	9.5	9.52	19.05	118	5	6	\$1,268.40
37-1104	DC Motor	25	31.75	19.05	12.70	19.05	132	5	6	\$1,268.40
37-1112	DC Motor	50	56.75	19.05	12.70	19.05	162	5	6	\$1,378.65
37-9719	DC Motor	13	19	9.5	9.52	19.05	118	5	6	\$1,268.40
37-9685	DC Motor	25	31.75	19.05	9.52	19.05	132	5	6	\$1,256.00
37-9693	DC Motor	50	56.75	19.05	9.52	19.05	162	5	6	\$1,375.00