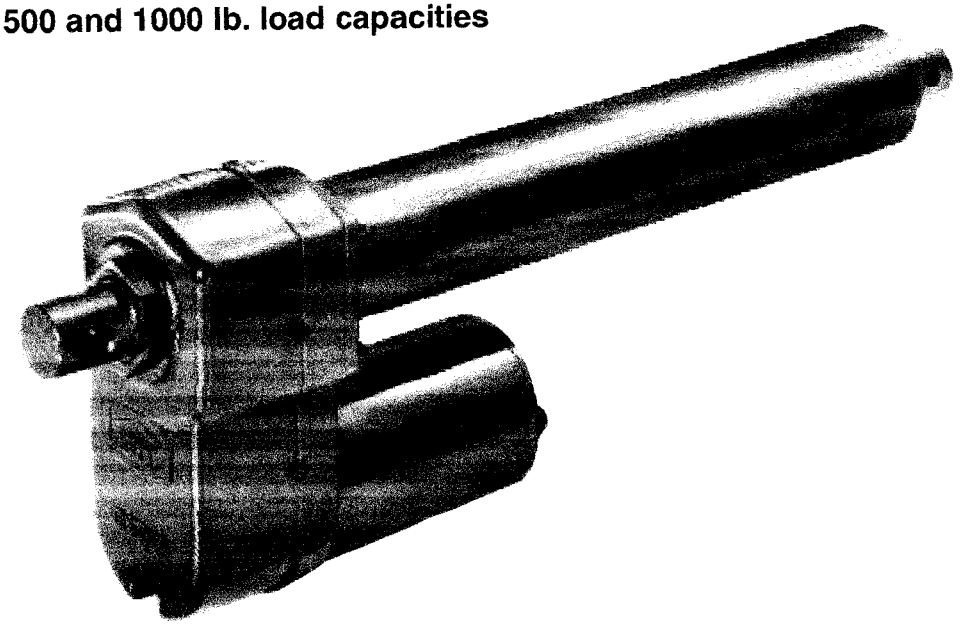
Electrak 10

12 and 24 VDC
500 and 1000 lb. load capacities



General purpose
DC actuator

Electrak 10 models incorporate a ball bearing screw drive system for applications requiring maximum load capacity. A specially designed anti-back driving brake holds tension or compression loads in position when the actuator is not in use. This holding brake activates automatically when the actuator is turned off and will continue to hold the load in position without power consumption, until the actuator is started.

Design features such as strong alloy housing, reinforced end plugs and rugged spur gearing are standard with the Electrak 10 series.

The Electrak 10 series provides as much as 1000 pounds of force from a 12" long package. Twelve inches of linear travel is available from an overall package length of just 20 inches.

Features

- Clevis mounting
- Protective seal
- Sturdy steel cover tube
- Ball bearing screw drive systems
- Overload clutch
- 4, 8 or 12" stroke lengths
- Stainless steel extension tube
- Rugged spur gearing
- 12 or 24 VDC
- Lifetime lubrication of gears
- Thermal overload protection

Best Uses

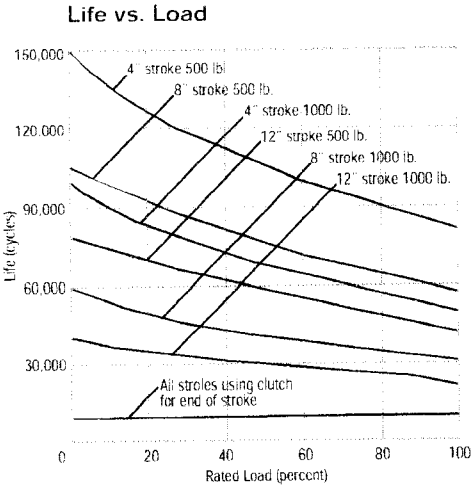
- Heavy duty platform lifts
- Bench clamps
- Door control
- Battery powered applications

Model Numbers (use when ordering)

Stroke Length*	Voltage	Load Capacity 500 lbs.	1000 lbs.	Weight lbs.
4	12 VDC	D12-05B5-04	D12-20B5-04	11.30
	24 VDC	D24-05B5-04	D24-20B5-04	11.30
8	12 VDC	D12-05B5-08	D12-20B5-08	12.02
	24 VDC	D24-05B5-08	D24-20B5-08	12.02
12	12 VDC	D12-05B5-12	D12-20B5-12	12.74
	24 VDC	D24-05B5-12	D24-20B5-12	12.74

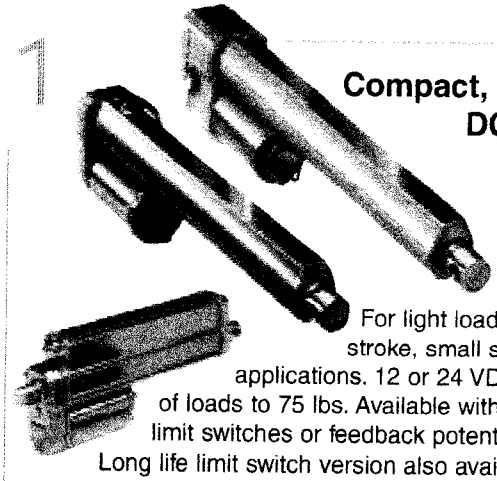
*For longer stroke versions or models including other options – contact the factory.

Performance Curves



Actuator Selection

1 Compact, light duty, DC actuator

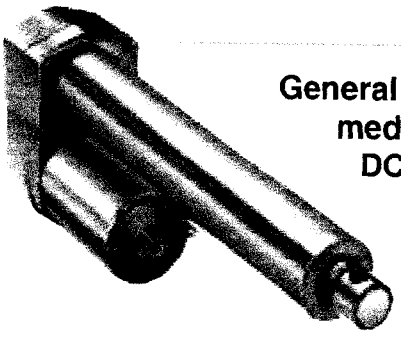


For light load, short stroke, small space applications. 12 or 24 VDC operation of loads to 75 lbs. Available with either fixed limit switches or feedback potentiometer. Long life limit switch version also available. Provides consistent, repeatable performance under rigorous operating conditions including extreme temperatures, high humidity and power input variations.

- Two models—loads up to 25 or 75 pounds
- 2, 4, or 6" stroke lengths
- Acme screw drive
- End of stroke limit switches
- 18 gauge lead wires with slide-on connectors
- Clevis mount
- 25% duty cycle
- Thermal overload protection on motor

For complete specifications see pages 12-15.

2 General purpose, medium duty, DC actuator



Economical. Ideal for battery power applications, medium loads and duty cycle. 12 VDC operation of loads to 250 lbs. Has self-locking Acme screw and does not need a brake to prevent backdriving.

- Two models—loads up to 250 pounds
- 4, 8, or 12" stroke lengths (also 18 and 24")*
- Acme screw drive
- Thermal overload protection on motor
- 14 gauge lead wires with slide-on connectors
- Overload clutch
- Stainless steel extension tube
- Clevis mount
- 25% duty cycle

**Consult customer service*

For complete specifications see pages 16-17.

10 General purpose, heavy duty, DC actuator

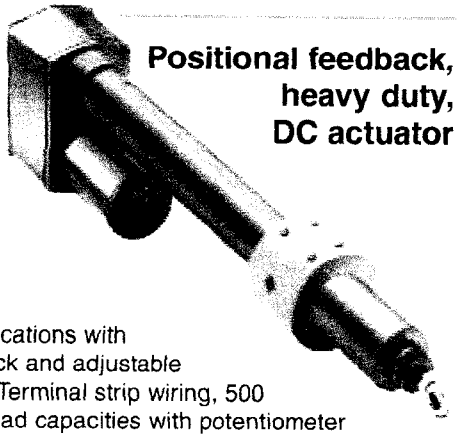
Industrial applications requiring DC operation. 500 and 1000 lb. load capacity. Automatically activated holding brake. 12 or 24 VDC input.

- Two models—loads up to 500 or 1000 pounds
- 4, 8, or 12" stroke lengths (also 18 and 24")*
- Ball bearing screw drive with load-holding brake
- Overload clutch
- Stainless steel extension tube
- Clevis mount
- 25% duty cycle
- 14 gauge lead wires with slide-on connectors
- Weather protected for outdoor use
- Ideal for battery powered applications
- Thermal overload protection on motor

**Consult customer service*

For complete specifications see pages 20-21.

100 Positional feedback, heavy duty, DC actuator

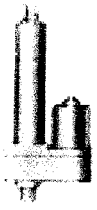
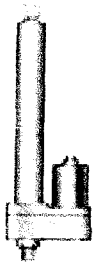
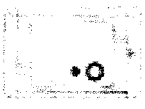


Industrial applications with built-in feedback and adjustable limit switches. Terminal strip wiring, 500 and 1000 lb. load capacities with potentiometer feedback for position sensing.

- Two models—loads up to 500 or 1000 pounds
- 4, 8, 12, 18 or 24" stroke lengths
- Ball bearing screw drive with load-holding brake
- Adjustable end of stroke limit switches
- Thermal overload protection on motor
- Overload clutch
- Stainless steel extension tube
- Tube and clevis mount
- 25% duty cycle
- 24 VDC input

For complete specifications see pages 22-23.

Quick Reference Guide

	1			2	5	10	100	205
	With Limit Switches	With Feedback Potentiometer	Long Life					
								
Input Voltage	12VDC 24VDC	12VDC 24VDC	12VDC 24VDC	12VDC	115VAC 230VAC	12VDC 24VDC	24VDC	115VAC 230VAC
Load Capacity (lbs.)	25 75	25 75	25 75	250	500 1000	500 1000	500 1000	500 1000
Stroke Length (inches)	2, 4, 6	2, 4, 6	2, 4, 6	4, 8, 12, 18*, 24*	4, 8, 12, 18, 24	4, 8, 12, 18*, 24*	4, 8, 12, 18, 24	4, 8, 12, 18, 24
Type of Lead Screw	Acme screw	Acme screw	Acme Screw	Acme screw	Ball bearing screw	Ball bearing screw	Ball bearing screw	Ball bearing screw
Duty Cycle, Full Load	25%	25%	25%	25%	25%	25%	25%	25%
Load Limiting Clutch	No	No	No	Yes	Yes	Yes	Yes	No
Limit Switches	Fixed	Only with MCS-2007 control	Fixed	No	No	No	Adjustable	Adjustable
Feedback	No	Potentiometer	No	No	No	No	Potentiometer	Potentiometer
Motor Overload Protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Restraining Torque (max.)	20 lb. in.	20 lb. in.	20 lb. in.	100 lb. in.	100 lb. in.	100 lb. in.	100 lb. in.	100 lb. in.
Environment	Washdown 96 hour salt spray	Washdown 96 hour salt spray	Washdown 96 hour salt spray	Washdown 96 hour salt spray	Oily, damp, dirty. Outdoors with drip shield over motor & proper grounding & ground fault protection	Washdown 96 hour salt spray	Washdown 96 hour salt spray	Oily, damp, dirty. Outdoors with drip shield over motor & proper grounding & ground fault protection
Standard Control	MCS-2005	MCS-2007	MCS-2005	6932-101-054	MCS-2041 (115VAC) MCS-2042 (230VAC)	MCS-2025	MCS-2035	MCS-2051 (115VAC) MCS-2052 (230VAC)
								
Optional Control(s)		MCS-2015 MCS-2025		Relay supplied by customer		MCS-2015	MCS-2015 MCS-2025	

*Consult customer service

5

General purpose, heavy duty, AC actuator

For intermittent duty industrial applications. Maximum thrust of 500 or 1000 lbs. Stainless steel extension tube and slip clutch for overload protection. 115 or 230 VAC input.

- Two models—loads up to 500 or 1000 pounds
- 4, 8, 12, 18 or 24" stroke lengths
- Ball bearing screw drive with load holding brake
- Overload clutch
- Thermal overload protection on motor
- Cable harness included
- Clevis mount
- 25% duty cycle
- TENV construction for use in damp, dirty or oily environments

For complete specifications see pages 18-19.

205

Heavy duty, extended life, AC actuator

Long life industrial application. AC operation. Adjustable limit switches allow independent adjustment after installation. 10-turn potentiometer assures precise positioning.

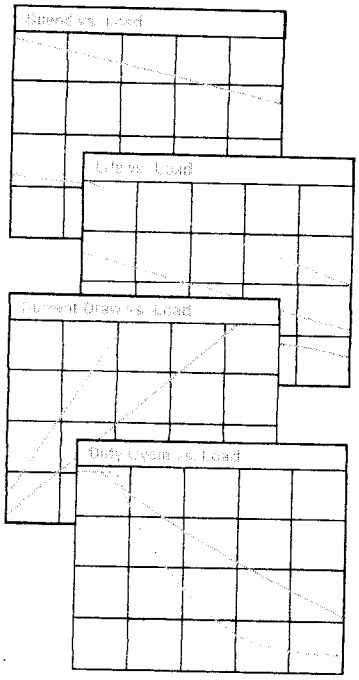
- Load holding and anti-coast brake
- Large ball bearing lead screw for higher static load
- Heavy duty roller thrust bearings
- Tube and clevis mount
- Strong cover and extension tubes for extra resistance to side loads and bending
- Load ratings of 500 and 1000 pounds
- 4, 8, 12, 18 or 24" stroke lengths
- Terminal strip wiring through standard conduit entrances
- Automatic reset thermal overload protection
- 25% duty cycle
- 115 or 230 VAC input
- TENV construction for use in damp, dirty or oily environments

For complete specifications see pages 24-25.

Selection procedure

Step 1. Determine load/speed

Select the actuator which has the optimum load and extension speed best suited for your application, See the following specification pages.



Step 2. Compare life and duty cycle

Compare actuator performance based on life vs. load and duty cycle vs. load curves provided for each Electrak actuator.

Step 3. Select length

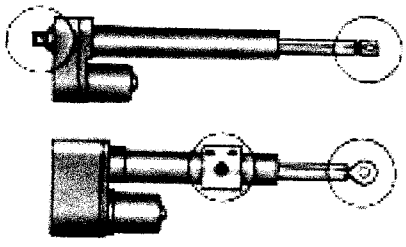
Choose the desired stroke length from the Quick Selection Guide on page 2 or from the Electrak specifications pages 12 thru 25.

Step 4. Verify design considerations

Duty Cycle. At full load capacity, all Electrak actuators have a 25% duty cycle. Duty cycle is the amount of "on time" vs "cooling time." For example, the 25% duty cycle actuator will run 15 seconds and need 45 seconds rest for a 1 minute total cycle time.

Side loading and shock loading restrictions. Side loading the actuator impairs actuator performance and will dramatically reduce life. Side loading and cantilever mounting should always be eliminated through proper machine design practices. Although actuators can withstand slight shock loads, it is recommended that shock loading be avoided as much as possible.

Mounting. Basically, two mounting styles are available. Be sure that the selected actuator's mounting configuration is adaptive to the application.



Step 5. Select control

Designed for use with Electrak actuators, the MCS-2000 series controls are available with all the features from simple on-off controls with basic extend/retract functions, or complete controls with membrane control function switches and an LCD digital display for accurate positioning readout. See page 26 for control selection.