

12 and 24 VDC  
30, 60, 112 lb. load capacities



## Features

- Short retracted length
- Low cost
- Quiet operation
- IP-56 rated for outdoor use
- Durable, lightweight, corrosion resistant plastic housing
- Available DC voltages: 12 or 24
- Estimated life at rated load is 40,000 cycles minimum

## Compact, low cost plastic housing

The Electrak E050 actuator is the new compact, quiet, low priced actuator suitable for a variety of markets and applications. This feature packed actuator has a very short retracted length for applications where space is a premium:

- It is designed to be quiet for medical or office applications.
- It has built in limit switches for end of stroke protection and a clutch for mid stroke protection.
- The colors are molded into the plastic to both eliminate the need for paint and touchup of scratches.
- The actuator has a breather tube in the wiring harness to allow the actuator to operate without drawing water through the seals on the cover tube.
- It is available with a control and pendant for one or two actuators.

The entire actuator has been designed for ease of installation, light weight, quiet operation, no maintenance and low cost.

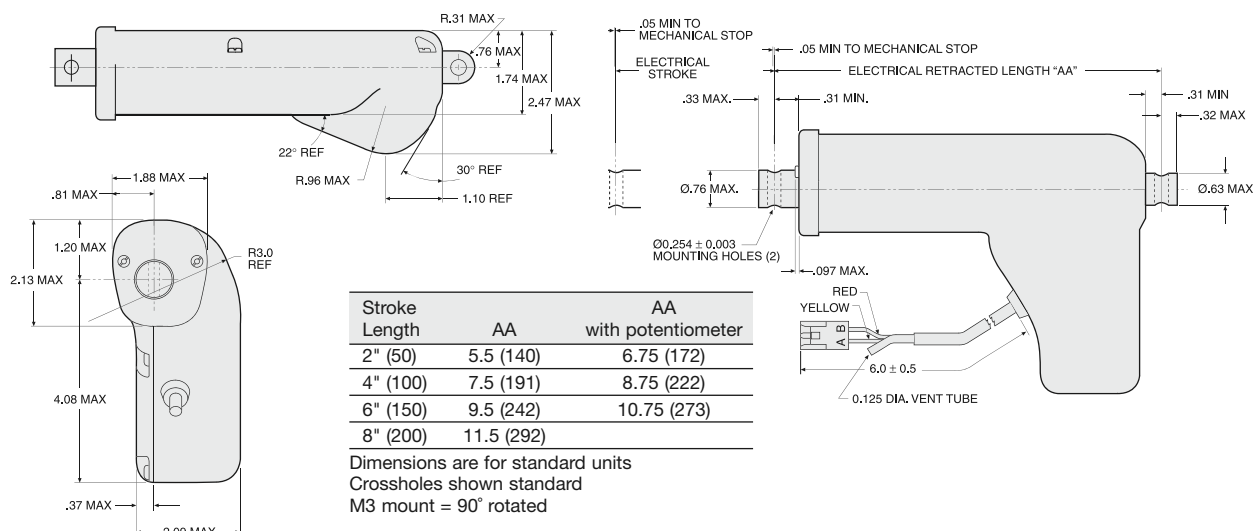
## Typical applications

- Raising and lowering leg supports on powered wheelchairs
- Boat seat back adjustment
- Squeegee lift on floor cleaner
- Throttle control on salt spreader
- Positioning/hiding stereo speakers in autos
- Air valves/damper controls
- Special effects on commercial video games
- Jet ski trim actuator

## Controls

DE14 series actuator controls operate Thomson E050 actuators. Available with one or two 24 VDC outputs, the DE14 has a handset to manually control bi-directional motion on each of its control outputs independently. For details see page D-47.

## Dimensions



**Specifications**

	DE12-17W41-XX	DE12-17W42-XX	DE12-17W44-XX
Dynamic load	112 lbs. max.	60 lbs. max.	30 lbs. max.
Static Load	224 lbs. max.	120 lbs. max.	60 lbs. max.
Speed	.48"/sec @ no load .37"/sec @ 112 lbs.	.95"/sec @ no load .72"/sec @ 60 lbs.	1.9"/sec @ no load 1.45"/sec @ 30 lbs.
End play	0.060" max less clevis	0.060" max less clevis	0.060" max less clevis
Restraining torque		Restrained internally	
Input voltage		12 or 24 VDC	
Amperage (12 VDC)		3.8 amp max. at rated dynamic load	
End of stroke		Fixed limit switches	
Mid stroke protection		Load limiting clutch	
Thermal protection		Internal motor breaker	
Lead wires		18 AWG PVC 800	
Connectors		Packard Electric Pack-Con	
Power switch		Optional DPDT	
Temperature		-30° to +180° F (-34° to 82° C)	
Environment		12 or 24 VDC	
Duty cycle		25% @ rated load and @ 70° F	
Anti-rotation		Tube can rotate max. of 7°	

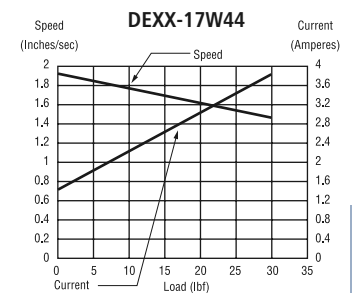
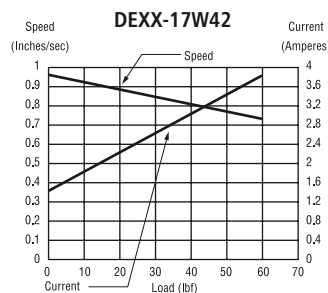
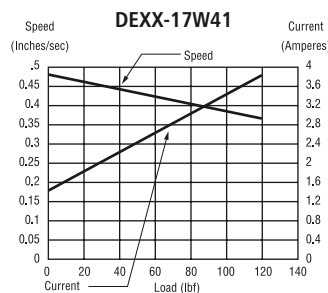
**Performance Curves**

**DE 12 Motor Curve**

Input voltage: 10-16 volts

Nominal performance at 12 VDC and 70°F (21°C)

Amperage: 3.8 amps max. at rated dynamic load and 70°F (21°C) ambient

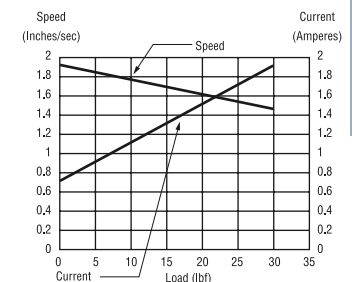
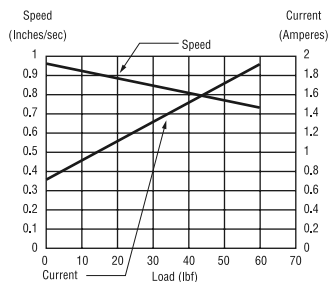
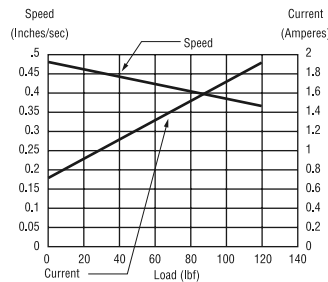


**DE 24 Motor Curve**

Input voltage: 20-28 volts

Nominal performance at 24 VDC and 70°F (21°C)

Amperage: 1.9 amps max. at rated dynamic load and 70°F (21°C) ambient



**How To Order**

**D E X X - 1 7 W 4 X - X X X X X X X**

- Motor Type: D = DC
- Actuator Type: E = E050
- Motor Voltage: 12 or 24
- = OEM Version; D=Distributor Version
- Gear Ratio: 17:1
- Screw Type: W = Worm
- Screw Diameter: (tenths of an inch)
- Screw Lead: (tenths of an inch) 1,2,4
- Stroke Length: Inches

- Other Options: N = None, W = White Housing
- Front Mounting: H = Crosshole
- Rear Mounting: H = Crossholes are shown above, M = M3, rotated 90°
- Feedback: N = None, P = Potentiometer
- Limit Switches: F = Fixed Limits

**Example: DE12-17W41-04FNHHN**

12 and 24 VDC  
30, 60, 112 lb. load capacities



## Features

- Short retracted length
- Low cost
- Quiet operation
- IP-51 rating standard
- Durable, lightweight, corrosion resistant plastic housing
- Available for 12 or 24 VDC input
- Estimated life at rated load is 40,000 cycles minimum
- Optional IP-56 sealing

## Trouble-free, reliable motion control

The Electrak Q050 actuator is the new compact, ultra-quiet low priced actuator specifically designed for office, healthcare or consumer applications. This feature-packed actuator can be ordered with a hand held pendant control to make installation and operation plug and play.

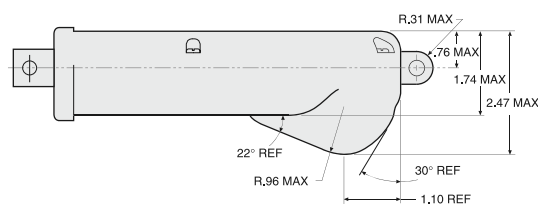
- Designed to be quiet for medical or office applications.
- Built in limit switches for end of stroke protection.
- Built in overload clutch for mid-stroke stall protection.
- Short retracted length for applications where space is a premium.
- Color molded into the plastic housing to eliminate the need for paint and for touch up of scratches.
- Available with control and hand held pendant for one or two actuators.

The entire actuator and control has been designed for ease of installation, quiet operation, no maintenance and low cost.

## Controls

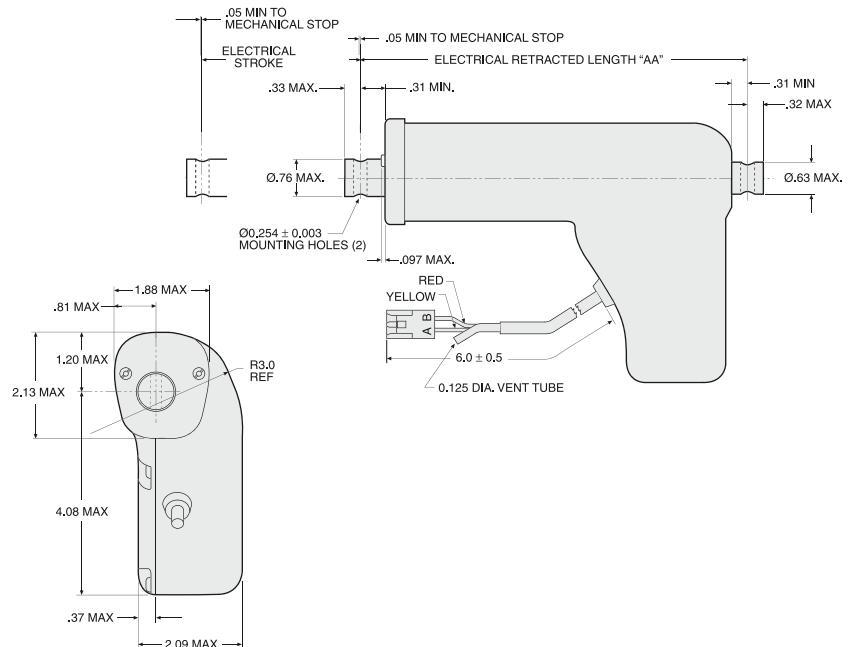
DE14 series actuator controls operate Thomson Q050 actuators. Available with one or two 24 VDC outputs, the DE14 has a handset to manually control bi-directional motion on each of its control outputs independently. See page D-47.

## Dimensions



Stroke Length	"AA"	"AA" With Potentiometer
2"	5.5	6.75
4"	7.5	8.75
6"	9.5	10.75
8"	11.5	-

Dimensions are for standard units.  
Crossholes shown std.  
M3 mount=90° rotated



**Specifications**

	DE12Q17W41-XX	DE12Q17W42-XX	DE12Q17W44-XX
Dynamic load	112 lbs. max.	60 lbs. max.	30 lbs. max.
Static Load	224 lbs. max.	120 lbs. max.	60 lbs. max.
Speed	.36"/sec @ no load .30"/sec @ 112 lbs.	.70"/sec @ no load .55"/sec @ 60 lbs.	1.5"/sec @ no load 1.2"/sec @ 30 lbs.
End play	0.060" max less clevis	0.060" max less clevis	0.060" max less clevis
Restraining torque	Restrained internally		
Input voltage	12 or 24 VDC		
Amperage (12 VDC)	2.5 amp max. at rated dynamic load		
End of stroke	Fixed limit switches		
Mid stroke protection	Load limiting clutch		
Thermal protection	Internal motor breaker		
Lead wires	18 AWG PVC 800		
Connectors	Packard Electric Pack-Con		
Power switch	Optional DPDT		
Temperature	-30° to +180° F (-34° to 82° C)		
Environment	IP-51 standard		
Duty cycle	25% @ rated load and @ 70° F		
Anti-rotation	Tube can rotate max. of 7°		

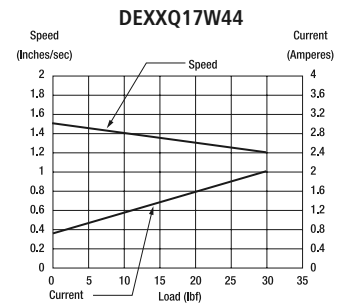
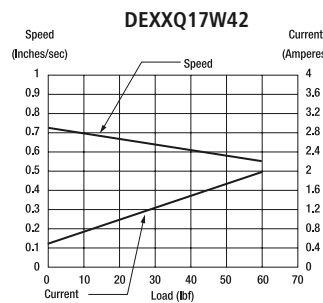
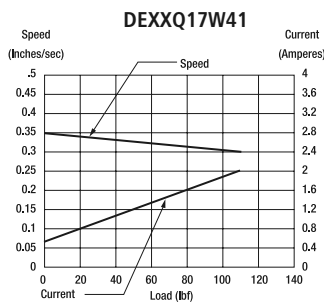
**Performance Curves**

**DE12Q Motor Curve**

Input voltage: 10–16 volts

Nominal performance at 12 VDC and 70°F (21°C)

Amperage: 2.5 amps max. at rated dynamic load and 70°F (21°C) ambient

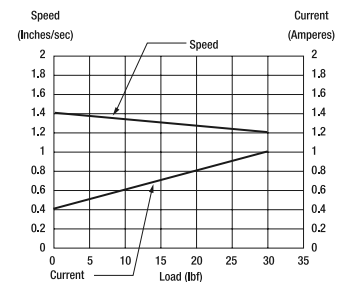
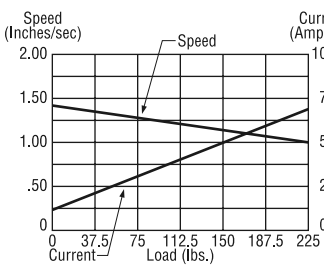
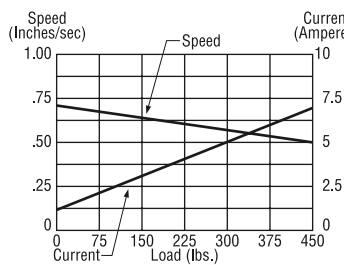


**DE24Q Motor Curve**

Input voltage: 20–28 volts

Nominal performance at 24 VDC and 70°F (21°C)

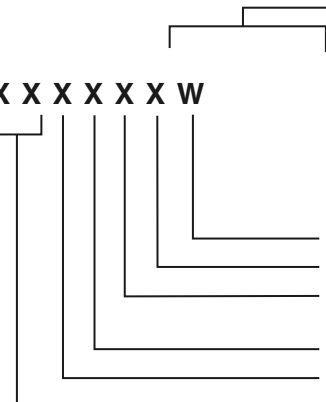
Amperage: 1.2 amps max. at rated dynamic load and 70°F (21°C) ambient



**How To Order**

- Motor Type: D = DC
- Actuator Type: E = 050
- Motor Voltage: 12 or 24
- Version: Q = Q050
- Gear Ratio: 17:1
- Screw Type: W = Worm
- Screw Diameter (tenths of an inch)
- Screw Lead (tenths of an inch) 1,2,4

**D E X X Q 1 7 W 4 X - X X X X X X W**



**Customer Special\*\* and Drawing Ref. No.**

\*\*If actuator is a customer special then the 15th and 16th characters are always numeric (drawing ref.) instead of alpha. The last 2 characters are alpha for customer identification.

**Example: DE12Q17W41-04FNHHW**

- Other Options:** N = None, W = White Housing
- Front Mtg.:** H = Crosshole
- Rear Mtg.:** H = Crossholes are shown above, M3 = Rotated 90°
- Feedback:** N = None, P = Potentiometer
- Limit Switches:** F = Fixed Limits
- Stroke Length:** Inches