

Figure 1 Axial load

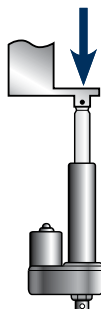


Figure 2 Cantilevered mount

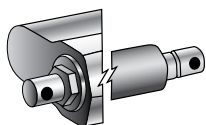


Figure 3 Clevis mount

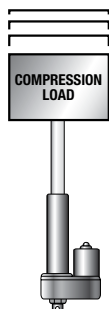


Figure 4 Compression load

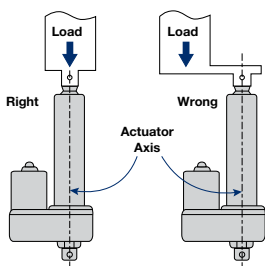


Figure 5 Eccentric load

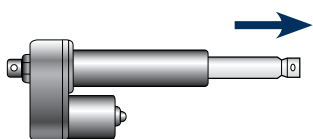


Figure 6 Extended length

Axial load

A load along the axis of the actuator screw (see figure 1).

Back drive

Force applied on a ball bearing nut that causes rotational torque to reverse direction. A force sufficient to cause a unit to change direction.

BTc

B-Track control family.

Cantilevered mount

A mounting where the mounting pin is not supported on both sides. Cantilevered mounts are common causes of failure (see figure 2).

Clevis mount

A U-shaped metal piece that has the ends drilled to accept a pin or bolt (see figure 3).

Compression load

Compression loading will press on the unit (see figure 4).

Cover tube

The outer tube or cover that encloses the screw and extension tube for an actuator.

Current vs. load

The load on the motor is measured by amperes (current). Current draw will increase as load increases.

Cycle

Movement from a fully retracted to fully extended position and back to fully retracted.

Duty cycle

The amount of 'on-time' vs total time. A 25% duty cycle means that a unit operates for 10 seconds out of 40 seconds, or 4 seconds out of 16 seconds.

Eccentric load

An off-center load which may cause binding and shorten actuator life (see figure 5).

End play

The amount of backlash or movement between the extension tube and the body of the actuator.

Extension rate

The rate of speed at which the actuator extends or retracts. This will vary based on loading (impact of load on speed is greater on DC units than on AC units).

Efficiency

Ratio of input power to output power.

ESL

Electronic Stroke Limit magnetically activated Hall effect switches that turn power off at end of stroke.

Extended length

The overall length of the actuator from the center of the rear clevis to the center of the extension tube pin hole when the unit is at full extension (see figure 6).

Load

The force, measured in pounds, that is applied as an axial load on the actuator.

Load holding

The ability of the actuator to hold a load stationary when power is off.

Peak load

The maximum dynamic load that will be applied to the actuator, or that the actuator is capable of moving.

Pin mount

The use of a dowel or pin through the hole in the clevis mount (on the rear of an actuator) or the extension tube (on the front of an actuator) (see figure 7).

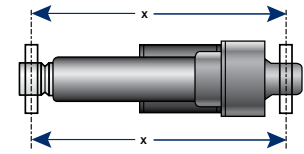


Figure 7 Pin mount

Radial load

A load applied to the side of the extension tube or across the body of the actuator. Normally radial loading will have a negative impact on unit life (see figure 8).

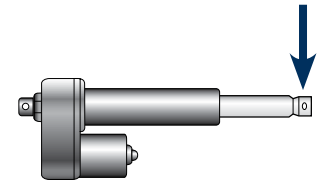


Figure 8 Radial load also side loading

Restraining torque

The torque required to prevent torque within the unit from causing rotation on the body or extension tube of the unit (see figure 9).

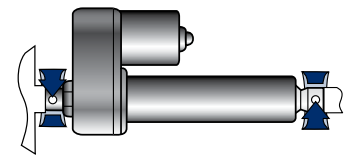


Figure 9 Restraining torque

Retracted length

The overall length of the actuator from the center of the rear clevis to the center of the extension tube pin hole when the unit is at full retracted position (see figure 10).

Side load

See radial loading (see figure 8).

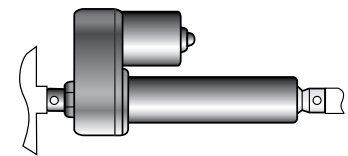


Figure 10 Retracted length

Static load

The maximum non-operating (or non-moving) load. Static load is the load holding capability of an actuator.

Synchronous position

Having more than one actuator extend and retract together maintaining ± 0.20 position relative to each other.

Tension load

A load that will tend to pull on the unit (see figure 11).

Thermal overload

A switch within the motor that will open if the motor exceeds a predetermined heat level.

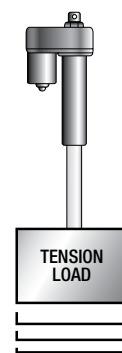


Figure 11 Tension load

