

Redundant Actuator Solutions

Maintenance studies have shown that in typical electric actuators the weakest link for failure is either the motor or the controls. While Exlar has superior reliability over traditional electric actuators, we recognize that some applications are critical enough to justify redundancy.

Exlar has designed a redundant actuator that provides two motors and two feedback devices (resolvers) integrated together in once compact package using a single reliable roller screw. Each motor has its own power and feedback connection designed to be connected to two independent controllers.



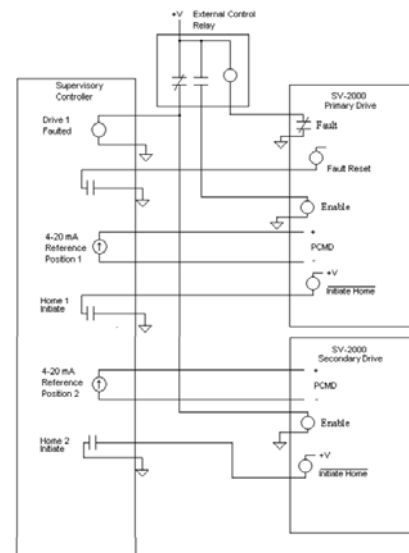
This redundancy configuration is available on our GSX30, 40, 50, 50 and 60 product models. It is limited to one or two stack stators only, due to roller screw length limitations. We can therefore accommodate forces up to 5100lbs. All typical options are available, including Class I Div 2 hazardous environment ratings.

Adding two Exlar SV Controllers completes the redundancy. The SV Controller has internal functionality to provide for redundant operation. One SV Controller is labeled the primary and the other is the secondary, or backup.



Exlar SV Series Controllers

If the primary controller fails, the secondary will take over control. The same is true should a motor or resolver fail. In addition, the primary or secondary controller can be removed without interrupting the normal operation of the system that is in control.



Common applications for a redundant actuator from Exlar include nuclear feed water pump applications and steam turbine governor valve applications.