

## Modern Motion...

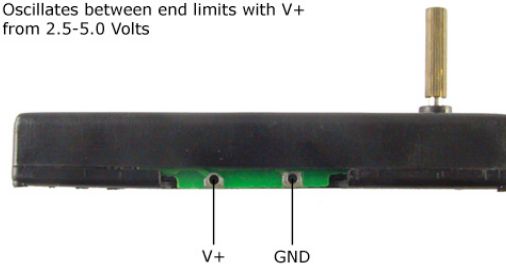
Release Date: November 6, 2008

The NanoMuscle NM70 Rotary Shape Memory Actuators provide up to 60° of rotation when actuated, and return via an internal spring when deactivated.

The NM70R-2P and NM70R-6P are *surplus* actuators being offered for sale by Miga Motor Company. Miga did not design or manufacture the actuators, so cannot offer much support with regard to their operation. We understand that the datasheet (NM70-RS-CE.pdf) for the NM70 Rotary Actuators does not have the correct pinout diagram, so we have tested the actuators, and provide the following as a guide to their operation. The general operating requirements and descriptions in the data sheets are otherwise correct.

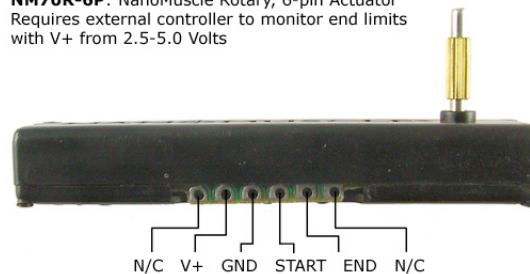
The NM70R-2P is intrinsically safe from over powering, in that the actuator cuts power internally when the internal END limit is reached, and actuates again when the START limit is reached.

**NM70R-2P:** NanoMuscle Rotary, 2-pin Actuator  
Oscillates between end limits with V+ from 2.5-5.0 Volts



The NM70R-6P requires an external controller to monitor limit switch status, and remove power when the END limit is reached to prevent overheating the SMA wires.

**NM70R-6P:** NanoMuscle Rotary, 6-pin Actuator  
Requires external controller to monitor end limits with V+ from 2.5-5.0 Volts



N/C: Not Connected  
START: HIGH (V+) when actuator is at rest  
END: HIGH (V+) when actuator is at end of stroke  
Note: No safe capability: do not over heat SMA wires