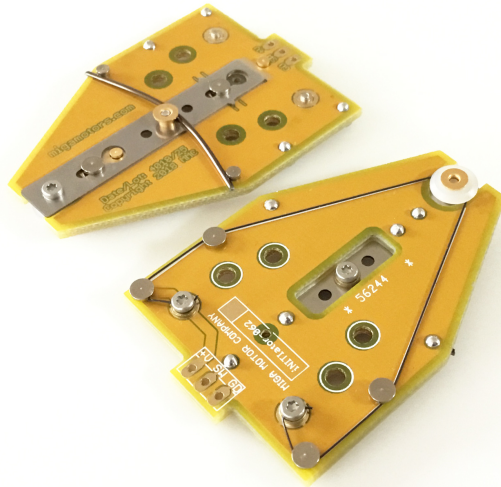


Miga Technologies, LLC

Technical Data Sheet

iNITiator-062 Shape Memory Alloy Wire Actuator



Specifications:

- Force: >6.0 lbf (>27N)
- Stroke: 0.062" (1.57mm)
- 3-9 volt operation
- Operating Temp Range: +10 to 55°C (larger without super-elastic spring)
- Actuation: 0.22s @ 5.0v

The **iNITiator-062** is a short stroke Shape Memory Alloy wire actuator with a very high force-to-weight ratio (exceeding 400:1) critical for applications with extreme weight requirements. The ideal use is as a single- or multi-use high-speed trigger release mechanism.

The **Miga-iNITiator-062** is a short-stroke trigger-release mechanism featuring silent operation and low profile typical of Miga's constant-force Shape Memory Alloy actuators. It is available with smaller SMA wire diameters (for higher resistance, lower force output), but defaults to 0.012" diameter High Temperature Two-Way Nitinol Shape Memory wire.

The **iNITiator-062** is optimized for LiPo battery-powered operation at 7.4 volts, but operates from 3.0 to over 9.0 volts. Actuation speed is a function of voltage as shown below.

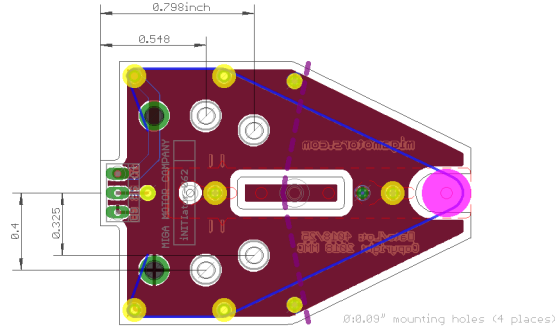
The **iNITiator-062** requires an external MOSFET switching & protection circuit such as the Miga MADv5 or similar circuit.

The **iNITiator-062** has a 3-wire interface: Voltage (+V), End Contact (SW), and Ground (GD).

The **iNITiator-062** weighs less than 0.22 oz. (6.24 grams), providing a Force-to-Weight ratio of over 400:1, and the overall envelope is 1.91 x 1.37 x 0.1" (48.5 x 34.8 x 2.54mm).

The **iNITiator-062** has a low force super-elastic Nitinol wire bias spring to maintain tension in the SMA wire, which limits the cold operating temperature. Full hard stainless steel (music wire) can be substituted for low temperature applications.

Contact us for STEP files of the **iNITiator-062** actuator in both Default and Energized states.

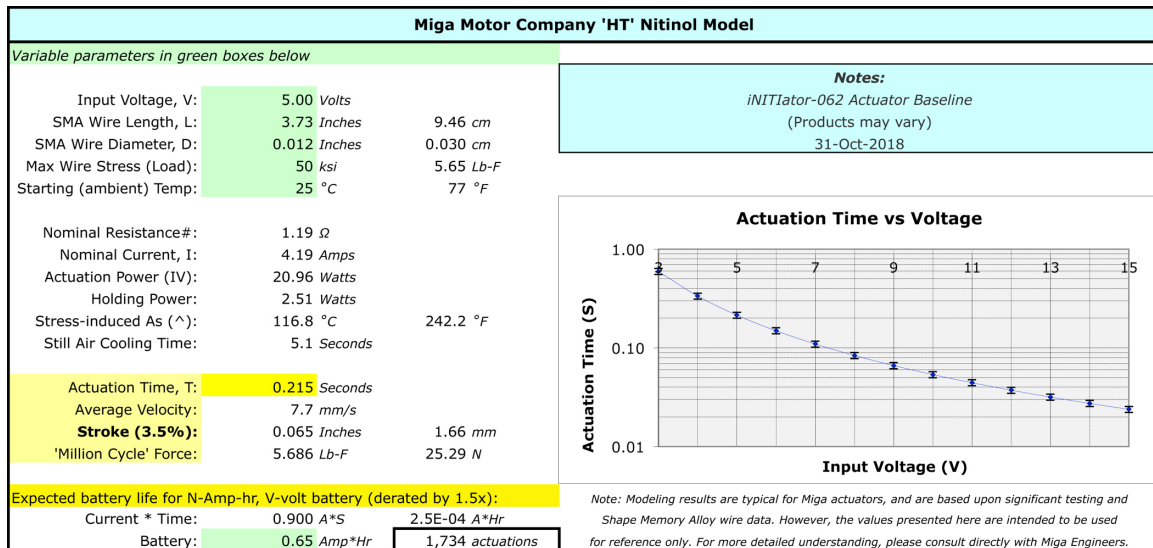


The iNITiator-062 has Ø:0.060" holes in the sliding stage to connect to the load: generally through a precision pin.

Technical Specifications

Resistance:	1.2	Ω
Current (@ 5.0 volts):	4.2	Amps
Actuation Power:	21	Watts
Holding Power:	2.5	Watts
Still Air Cooling Time:	5.1	Seconds

Figure 1: Typical specifications for iNITiator-062-012 actuators.



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