Model 9102G Hold Down & Release Mechanism

**Applications**

Typical applications include:
- Antennas, reflectors, solar arrays, and deployable radomes
- Booms, masts, and scientific instruments
- Satellite and spacecraft deployment
- Launch vehicle and missile stage and fairing separation
- Missile payload separation

**Key Features**

- Non-explosive hold down & release function
- High restrained preload
- Extremely low release shock
- High simultaneity of multiple hold-down points
- Wide operating temperature range
- Can be operated with pyrotechnic initiation circuitry
- Space-rated materials
- Factory refurbishments
- More than 20 years of flight heritage
- Flight pedigree on more than 750 space platforms

**Model 9102G Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Capability</th>
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<tbody>
<tr>
<td>Proof Load Rating</td>
<td>22.2 kN (5,000 lbf)</td>
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<tr>
<td>Release Load Rating</td>
<td>17.8 kN (4,000 lbf)</td>
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<tr>
<td>Shock @ Preload²</td>
<td>&lt;500 g’s @ 17.8kN (4,000 lbf)</td>
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<tr>
<td>Fuse Wire Resistance</td>
<td>1.2 to 2.0 Ω @ 25°C</td>
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<tr>
<td>Actuation Current²</td>
<td>4 Amps for 25 ms</td>
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<tr>
<td>No-Fire Current²</td>
<td>250mA at 10-5 Torr @ 110° C</td>
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<tr>
<td>Release Time¹</td>
<td>&lt;50 ms</td>
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<tr>
<td>Operational Temperature Range¹</td>
<td>-135°C to +135°C</td>
</tr>
<tr>
<td>Maximum Angular Misalignment</td>
<td>6° Cone</td>
</tr>
<tr>
<td>Mass¹</td>
<td>130 g (0.29 lbm)</td>
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**Notes:**
1. Shock is preload and setup dependent.
2. Actuation can be achieved using a wide range of current
3. No Fire current for 5 minutes
4. Release time is dependent on actuation current, this assumes 4A current applied.
5. The values for operational temperature range are not the limits of the device.
6. Mass does not include housing and lead wires.

**Model 9102G Hold Down & Release Mechanism (HDRM) Mechanical Interface Drawing**

Note: Model 9102G Release Mechanism shown. Different configurations available with alternate release nuts, mounting features, and connectors. Metric configurations are also available.