G200 EHG Specification

Features
- gemnSTM EHG model G200 is bidirectional signaling device based on electromagnetic induction
- Permanent magnet and induction coil uses kinetic energy from permanent magnet rotor to generate electrical energy
- Versatile Actuation Options
  - Plunger Activation – Designed for industrial applications (limit/safety switches) with mechanical striker application
  - Magnetically Coupled - Provides the benefits of non-contact actuation
  - Preloaded/Resettable - EHG is preloaded with energy, requiring extremely low force to release energy.
- Bidirectional operation with actuate/release direction detection
- High Output – 3.5 mJ with 3.3V Buck-boost and 3.2 mJ with 1.8V Buck, 5~50mA load, significantly exceeds competing commercial technology offering only 120uJ
- Ready for custom OEM package design/integration

Details
- Versatile and compact design with output exceeding 3.0 milljoules
- Various actuation options include plunger, magnetically coupled, and preloaded configurations
- Ideal for environments with high energy demands like industrial IoT and automotive
- Life-tested to over 250,000 activations (with 1 million+ achievable)
- Easily adapted in design to fit requirements for form factor, energy demand, actuation type, and weather rating

Dimensions
- 0.961" x 0.491" x 1.186"

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Generator Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage at max. charge</td>
<td>4.6 V</td>
</tr>
<tr>
<td>Regulated Energy – 1.8V</td>
<td>&gt; 3.2 mJ, external ISL9123</td>
</tr>
<tr>
<td>Regulated Energy – 3.3V</td>
<td>&gt; 3.5 mJ, external ISL9122</td>
</tr>
<tr>
<td>Actuation Force</td>
<td>Actuator type dependent</td>
</tr>
<tr>
<td>Cycle Durability</td>
<td>1,000,000 Press/Release Cycles</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40 to +85° C</td>
</tr>
</tbody>
</table>

Energy Output Curves

Data provided is by actuation using manual preload and release.

1 - 250K validated cycle life, over 1M expected