We are your bomb and missile fuzing solution.
We are Kaman.

FMU-139C/B

Electro-mechanical impact, impact delay, and proximity sensor-enabled fuzing system

860-632-4521
KamanFuzing.com
fuzing@kaman.com
Compatibility

- Compatible with most U.S. Air Force, Navy, Marine Corps and NATO aircraft.
- Compatible with most in-service weapon guidance kits, tail units and high-explosive bombs.

Main features

- All arming and detonation event functions combined in a single fuze system
- Dual independent launch signals and environmental sensing
- Advanced electronics technology implemented with solid-state circuitry
- Automatic retard deceleration recognition
- Reliability greater than 95%
- Ten year shelf life
- One year service life
- Fully developed and in high volume production
- Annual production capacity greater than 45,000 units
- Meets safety criteria of MIL-STD-1316D

Functions

- Proximity
- Impact “0” delay
- Post impact delay - short

System description

The FMU-139C/B Bomb Fuze is an electro-mechanical impact/impact delay fuzing system developed for use by both the U.S. Navy and U.S. Air Force in the MK82, MK83, MK84, BLU-110, BLU-111, BLU-117, low drag and high drag tail kits, and laser guided and JDAM (limited).

In addition to impact/impact delay, the fuze is capable of accepting a signal from a separate proximity sensor (DSU-33D/B).

Key features

Key features of the FMU-139C/B include:
- Ease of installation and preparation for flight
- Compatibility with proximity sensor fire signal
- Ability to sense a high-drag delivery
- Ability to manually set the arming and event times prior to take-off, or electrically set them with reduced selectability by cockpit selection at bomb release via FFCS.

The fuzing system consists of a cylindrical fuze and a closure ring in the NAVAIR application. An additional turbine generator (FZU-48/B) and cable assembly are used for the USAF application.

In the NAVAIR application, power is transmitted to the fuze from the AN-AWW series Fuze Function Control set (FFCS) at release from the aircraft.

In the USAF application, power is provided by the FZU-48/B air-driven turbine alternator, which is lanyard activated upon release from the aircraft.

The FMU-139C/B has passed the appropriate environmental tests of MIL-STD-331 and MIL-STD-810D.
### Performance characteristics

<table>
<thead>
<tr>
<th>Parameter Settings</th>
<th>Navy &amp; USAF Applications with FZU-48/B</th>
<th>NAVAIR Applications with FFC Mk122 Safety Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arming Time - High Drag</td>
<td>2.0, 2.6, 4.0, 5.0 seconds</td>
<td>2.6 sec Arm/Instant (+300 vdc) &lt;br&gt; 2.6 sec Arm/Instant (-300 vdc) &lt;br&gt; 2.6 sec Arm/Delay per Switches (+195 vdc) &lt;br&gt; 2.6 sec Arm/Delay per Switches (-195 vdc)</td>
</tr>
<tr>
<td>Arming Time - Low Drag</td>
<td>4, 6, 7, 10, 14, 20 seconds</td>
<td>10 sec Arm/Instant (+300 vdc) &lt;br&gt; 5.5 sec Arm/Instant (-300 vdc) &lt;br&gt; 10 sec Arm/Delay per Switches (+195 vdc) &lt;br&gt; 5.5 sec Arm/Delay per Switches (-195 vdc)</td>
</tr>
<tr>
<td>Detonation Delay Times</td>
<td>Instantaneous, 10 ms, 25 ms, 60 ms</td>
<td>See above</td>
</tr>
<tr>
<td>Power Supply</td>
<td>FZU-48/B</td>
<td>FFCS at Release</td>
</tr>
<tr>
<td>Mission Duration</td>
<td>5 minutes minimum</td>
<td>240 seconds</td>
</tr>
<tr>
<td>Weapons</td>
<td>MK82, MK83, MK84, BLU-110, BLU-111, BLU-117, Low Drag and High Drag, JDAM (limited), high explosive bomb systems</td>
<td></td>
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<tr>
<td>Aircraft</td>
<td>F-15, F-16, F-18, F-22, F-35, F-111, B-1, B-2, B-52, AV8, and non-U.S. ground attack aircraft</td>
<td></td>
</tr>
<tr>
<td>Setting Compatibility</td>
<td>Manual</td>
<td>From cockpit via FFCS</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>10 years</td>
<td></td>
</tr>
<tr>
<td>Service Life</td>
<td>360 days (out of shipping container)</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-54°C to +71°C</td>
<td></td>
</tr>
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</table>

### Description

<table>
<thead>
<tr>
<th>Description</th>
<th>P/N</th>
<th>NSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMU-139C/B shipping &amp; storage, 9-pack (USN)</td>
<td>1379AS300</td>
<td>1325-01-517-2828</td>
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<tr>
<td>FMU-139C/B shipping &amp; storage, 6-pack (USAF)</td>
<td>1379AS926</td>
<td>1325-01-517-2822</td>
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<tr>
<td>FMU-139C/B fuze &amp; power cable, 6-pack (USN)</td>
<td>28290017-01</td>
<td>1325-01-600-5387</td>
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<td>FMU-139C/(D-2)/B fuze, electrical bomb</td>
<td>200425123-10</td>
<td>1325-01-551-5112</td>
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<tr>
<td>FMU-139C/B fuze &amp; accessories (FZU-48/B, ring, power cable; 6-pack) (USAF)</td>
<td>28290000-01</td>
<td>1325-01-535-6164</td>
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<tr>
<td>FZU-48/B initiator bomb fuze</td>
<td>8385220</td>
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<tr>
<td>FZU-48(D-2)/B dummy initiator bomb fuze</td>
<td>8385266</td>
<td>1325-01-454-7235</td>
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<td>Cable assembly, power electrical</td>
<td>9042203</td>
<td>6150-01-550-7404</td>
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<td>Accessory kit, fuze (FZU-61/B lanyard, FZU-48/B, power cable</td>
<td>1379AS928</td>
<td>1325-01-495-3029</td>
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<td>FZU-61/B lanyard, firing, fuze</td>
<td>1379AS927</td>
<td>1325-01-494-0541</td>
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</tbody>
</table>
Typical weapons applications

Gravity bomb
> HOB sensor
> General purpose warhead
> FMU-139C/B fuze
> FZU-48/B initiator

Laser-guided gravity bomb
> Nose guidance unit
> General purpose warhead
> FMU-139C/B fuze
> FZU-48/B initiator
> Stabilization tail

GPS-guided gravity bomb
> HOB sensor
> General purpose warhead
> FMU-139C/B fuze
> FZU-48/B initiator
> JDAM GPS tail

GPS/INS dual-mode laser-guided gravity bomb
> Nose guidance unit
> General purpose warhead
> FMU-139C/B fuze
> FZU-48/B initiator
> Stabilization tail

GPS/INS and laser-guided gravity bomb
> DSU-38/B or DSU-40/B Laser Detector
> General purpose warhead
> FMU-139C/B fuze
> FZU-48/B initiator
> JDAM GPS tail