

FBM21
Multifunction
Bomb Fuze



for new generation Air Bomb

FBM21

FBM21 is a tail cockpit programmable fuze designed to be adapted to a 3 inch NATO standard air bomb fuze well.

The fuze can be used with:

- General purpose bombs: MK80 series, with conventional or PBX fillings
- Penetration bombs: BLU109, CBEMS 125, CBEMS 250
- Guided weapons: Paveway II & III, Enhanced Paveway II & III, AASM, JDAM and LJDAM

It can be coupled to an external proximity sensor.

Having its own power supply, the FBM21 has over 8 minutes of free flight autonomy, thus allowing high altitude drop and insensitivity to aerodynamic disturbances during armament control maneuvers.

FBM21 is also designed to ignite insensitive bombs with high explosive fillings. The fuze itself has a high level of insensitivity.

The fuze design is based on the use of ESAD „in-line“ technology (Electronic Safety and Arming Device) using „slapper“ detonator (EFI) free of any primary explosive. This provides the fuze with a very high level of safety and reliability.

Due to its full-electronic design and its reinforced body structure FBM21 features outstanding capabilities when used with hard target penetration weapons.

The FBM21 system comprises the fuze itself, the arming environment sensor (AES) and the electrical cable between the fuze and the AES. The fuze is housed in the aft fuze well of the bomb body.

The AES is attached to the aircraft launch pylon and provides the arming signals to the fuze when the armament is released. Thanks to its serial data interface, the fuze mode of operation and parameters are programmable from the cockpit via the aircraft MIL-STD-1760 bus protocol.

Main features:

- Proximity: when coupled to proximity sensor, the fuze is able to initiate the sensor and to receive external firing order
- Can be operated through front and/or rear connector
- Provide functional data to any peripheral (i.e Height of Burst)
- Insensitive to free flight perturbed airflow due to guidance maneuvers

Technical Data FBM21

Safety:	<ul style="list-style-type: none"> • Hold on arming • Firing inhibit • De-arming with automatic return to safe
Performances	<ul style="list-style-type: none"> • Carriage endurance: >200 hours • Release domain: 0 to 40,000 ft – up to 600 kts • Arming domain: no arm below 190 kts – arm above 290 kts • Operating Temperature range: -54°C /+84°C
Hardening	<ul style="list-style-type: none"> • High G level hardening • EMI / EMC / IM hardening
Functional features	<ul style="list-style-type: none"> • Arming power: thermal battery • Autonomous flight: greater than 8` /unlimited with external power supply • Impact super-quick: 100µs • Post Impact Delay Times(manual setting): 0, 1, 2, 5, 10, 20, 60, 100 ms • Firing Delay Times (electrical setting): 0 to 250 ms by 1 ms step • Arming Delay (manual setting): 6, 12 and 20 s
Service life	<ul style="list-style-type: none"> • 20 years
Compliance with STANAG 4187 ed 4 / MIL-STD-1316, MIL-STD-1760	

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