

**FREMEN 100 mm  
Multi-Role  
Naval Fuze**



for 100 mm calibre weapon systems  
for Air Defence | Surface Warfare | Naval Fire Support

## FREMEN 100 mm

The FREMEN 100 mm is a new generation multi-role fuze which has been designed for use with the 100 mm calibre naval weapon system, to achieve a broad range of missions:

- Air defence
- Surface warfare
- Naval fire support

The FREMEN fuze has been specifically designed for the optimization of terminal effect against both air and surface targets. The fuze, with the new generation proximity sensor, provides the Navy with unmatched operational capabilities in air defence mode, and in particular in the defeat of sea-skimming missiles, drones and helicopters, as well as surface targets, on land or sea. On target, the fuze autonomously selects either air defence or surface fire mode, depending on whether the sensor identifies an air or surface target.

The basic mode of the fuze is proximity mode, with impact mode as back-up; the self-destruct mode can be inhibited manually, by the use of the external switch.

Using FMCW (Frequency Modulation–Continuous Wave) microwave radar technology in combination with full digital signal processing, the fuze sensor is able to measure the target distance and clearly register the echo signal, even in the presence of strong sea clutter (interference signals reflected by the sea surface). It is therefore capable of accurately functioning at the correct time to optimize the terminal effect in accordance with warhead fragment spreading.

### Technical Data FREMEN 100 mm

Self-destruct time	35 s - possible inhibition of the SD mode of the fuze, manually, through the setting switch located on the fuze body
Air defence (300 m to 6,000 m)	sea-skimming anti-ship missile, high diver missile, fighter aircraft, drones and helicopters miss distance: <ul style="list-style-type: none"> <li>• 6 m (low altitude target)</li> <li>• 8 m (high altitude target &gt; 20 m)</li> </ul>
Surface warfare (300 m to 6,000 m)	nominal height of burst: 2 m
Naval fire support (7,000 m to 16,000 m)	nominal height of burst: 6 m
Setting switch selection	<ul style="list-style-type: none"> <li>• autonomous mode               <ul style="list-style-type: none"> <li>- with self-destruct time</li> <li>- without self-destruct time</li> </ul> </li> <li>• impact</li> </ul>
Interface	operable with all HE 100 mm rounds (OEA F1, OPF F4)
Muzzle safety	140 m
Operational temperature range	-20°C to +60°C
Storage temperature range	-54°C to +71°C
Weight	1,600 ± 30 g
Shelf life	15 years
Compliance with STANAG 1380; STANAG 4157; STANAG 4187	

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