



NA-18L/B ELECTRO-OPTICAL FIRE CONTROL SYSTEM

The NA-18L/B is an Electro-Optical (EO) Fire Control System (FCS) specifically suitable as a main FCS on board of small and medium size vessels, as well as a secondary FCS for larger vessels.

The NA-18L/B is the most modern EO system developed by SELEX Sistemi Integrati, with a new concept of sensor head, lightweight, built with modern materials, assuring high immunity to structural vibrations and permitting a total training and elevation excursion, due to its spherical shape.

NA-18L/B EO FCS can be fitted with up to four sensors: B/W TV, Laser, IR; an optional colour TV can be added. The sensors carry out the acquisition and tracking functions under the control of the FCS processor and of the operator at the console.

In addition, the NA-18L/B may be connected to the Ship Search or Navigation Radar for simultaneous presentation of the radar video for surveillance purposes with consequent self designation capability.

The System is able of controlling up to three guns against the target under tracking.

Through an internal additional function, the NA-18L/B system can be integrated inside an Artillery System

(including at least two FCSs) in order to optimize the use of all onboard guns against multiple concurrent targets (missiles, air and surface targets).

A couple of Targets Designation Sight (TDS) enhance the FCS configuration.

NA-18L/B can be provided with a dedicated multifunctional console or controlled by any console of the Combat Management System (CMS).

The EO FCS can be easily integrated in every CMS and completely remote accessible.

The NA-18L/B is capable of safe operation in accordance with Military Standards.

The high reliability of the system allows to obtain a low cycle cost for its maintenance.

ARCHITECTURE

The system is composed of the following units:

- An unmanned, self-stabilized pedestal mounting the optronic sensor suite (TV, IR and Laser sensors) for target automatic tracking
- A Power Distribution and Computer Unit including a state-of-the-art Tracking and Ballistic processor

- A multifunctional display console, including raster scan, high resolution, colour monitors.

MAIN OPERATIONAL FUNCTIONS

NA-18L/B performs the main following tasks:

- Electro-optical autonomous search, manually by joystick or automatically by pre-programmed search patterns, with self-designation capability
- Radar surveillance presentation (search/navigation radar)
- Target detection, recognition and identification
- Designation management
- Automatic tracking (and prediction models) of air/surface/shore targets
- Stabilised gun orders computation
- Video recording and play-back.

STATUS

The NA-18L/B belongs to the latest generation of SELEX Sistemi Integrati EO FCS. The EO FCS have been designed and produced by SELEX-SI (and its predecessor companies Eltag, Alenia, AMS) for over 20 years with regular redesign or technology upgrades to ensure that the latest capabilities and technologies are included. The NA-18L/B is a very successful system which has been adopted by many Navies and Paramilitary Forces worldwide on a variety of ships.

TECHNICAL CHARACTERISTICS

Sensor Head

Self-stabilized	
Training limit:	unlimited (slip ring)
Training max speed:	2 rad/s
Tr. Max acceleration:	6 rad/s ²
Elevation limits:	unlimited (slip ring)
Elevation max speed:	2 rad/s
El. Max acceleration:	6 rad/s ²
Elevation useful arc:	- 30° to + 210°

TV Camera

Target:	CCD
Sensitivity:	10 to 200,000 lux
Lens:	Continuous zoom

IR Camera

Detector:	FPA
Spectral band:	3÷5 µm
Two optical FoVs:	Wide
	Narrow
Cooling system:	Closed cycle

Laser Range Finder

Type:	eyesafe
Range accuracy:	better than 5 m
Instrumental range:	300 to 20,000 m
High rate repetition frequency	

INSTALLATION DATA

Director (Sensors included)

- Dimension (h):	mm 650 (above deck)
	mm 330 (below deck)
- Diameter:	mm 550
- Weight:	kg 65

Power Distribution and Computer Unit

- Dimension (h w d):	mm (1310x565x920)
- Weight:	kg 170

Operator Console ((only in stand-alone configuration))

- Dimension (h w d):	mm (1806x905x995)
- Weight:	kg 240

