

Advanced Laser Systems Technology

ELRF-2

EYESAFE LASER RANGEFINDER

PRODUCT DESCRIPTION

The ELRF-2 is a Class 1 eyesafe, long-range laser rangefinder with an APD receiver suitable for a wide variety of applications. With options such as lower beam divergence for smaller targets or increased range resolution, the ELRF-2 can be configured for a specific application. The modularity of the unit along with L-3 ALST's engineering customization capability allows the ELRF-2 to be fitted to specific customer requirements.



FEATURES

- 20 km ranging capability
- Optional 1 Hz rep rate
- Avalanche Photodiode Detector
- 1.0 mrad beam divergence standard, 0.5 mrad optional
- ANSI Z136.1-2000 and EN 60825 Class 1 Eyesafe
- Kinematic mounting interface for reliable boresight retention
- Single connector interface for power and communication
- Modular configuration of components



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SPECIFICATIONS

Laser Type	Erbium:glass
Wavelength	1.54 microns
Pulse Rate	12 ppm (1 Hz optional)
Max/Min Range*	20 km / 50 m
Range Resolution	± 5 m (± 2 m optional)
Receiver Aperture	40 mm
Beam Divergence	1.0 mrad (0.5 mrad optional)
Detector Type	APD
Communication Interface Options	RS-232, RS-422, RS-485
Module Dimensions	2M: 228 mm x 75 mm x 55 mm 2MC: 178 mm x 76 mm x 76 mm
Housing Dimensions	2M: 280 mm x 117 mm x 71 mm 2MC: 217 mm x 121 mm x 91 mm
Weight	0.85 kg (w/o housing)

* Maximum range achievable under ideal atmospheric and target conditions. Actual range is dependent upon atmospheric conditions and upon target size and reflectivity.

OPTIONS FOR ELRF-2

Housing Option (H): Heavy-duty painted aluminum housing includes kinematic mounting features, sealed, visible light blocking window, sealed connector, and nitrogen purge valve.

High Pulse Rate Option (HPR): Continuous operation nominally up to three minutes at one hertz pulse rate. No increase in size or weight.

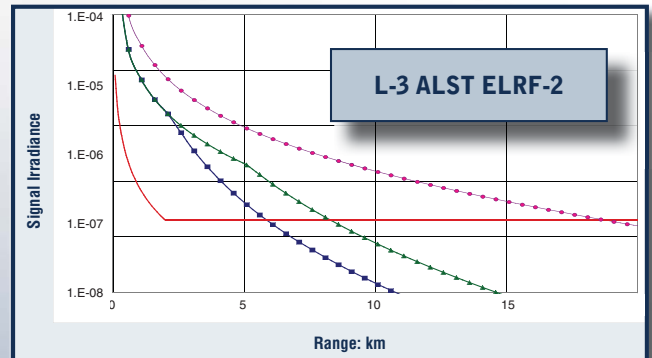
Non-Volatile Shots Counter Option (SC-1): The number of times the flashlamp has fired is recorded and stored in a non-volatile memory. This number is accessed via the serial interface.

High Range Resolution Option (RC-2): ± 2 meters range resolution.

0.5 milliradian Output Telescope Option (HB.5): 4-element beam expansion telescope reduces beam divergence to 0.5 milliradians. Recommended for long range applications or ground-to-air ranging against small targets.

Series Software Option (SW-1): Provides operation via any Windows equipped computer. All controls, installed options, and range data are accessed via the user-friendly control window with mouse selected command buttons and check boxes. One time license fee includes use with unlimited number of units.

Sighting Telescope (ST-1): Variable power riflescope with adjustable focus is mounted to housing and boresighted to laser rangefinder optical axis.



LEGEND

■	1-square meter, 10% R, 23-km. visibility
▲	TANK, 10% R, 23-km. visibility
●	Large Target, 40% R, 30-km. visibility
—	Minimum APD detection limit

Range Performance

M	MC
4.3 km	5.8 km
6.2 km	8.2 km
18.7 km	18.7 km

ABOUT L-3 ALST

L-3 Advanced Laser Systems Technology (L-3 ALST), a wholly owned subsidiary of L-3 Communications Corporation, designs, develops, and manufactures laser designator and rangefinder systems.

L-3 ALST's products are listed under category XII(b) of the United States Munitions List. International Traffic In Arms Regulations (ITAR) requires a valid export license prior to technical or hardware shipments or transmissions of information.



L-3 ALST is ISO 9001:2000 certified.

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communications

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L-3. Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems.