

# Advanced Laser Systems Technology

## LASER DESIGNATOR RANGEFINDER

### PRODUCT DESCRIPTION

The rugged, proven modular design of the L-3 ALST diode-pumped Laser Designator Rangefinder can be configured for air, land and seaborne applications. Variable laser energy outputs can be tailored to meet specific mission designating and ranging needs from man-portable to long-range airborne stand-off requirements.

Let us show you how our innovative design allows you to configure a laser designator rangefinder which can meet your unique form and fit requirements.



### FEATURES

Innovative design strategy

- Dual diode-pumped lasers:
  - Nd: YAG designator
  - Erbium:glass eyesafe rangefinder
- Increased reliability of both functions
- Eliminate a single point of failure
- Advanced thermal management

Extremely compact design

- Common optics for designation and ranging
- Thermal management permitting multiple target engagements over full MIL-SPEC environment
- Dual-mode power supply operates both diode-pumped lasers



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## LASER DESIGNATOR RANGEFINDER

### DESIGNATOR SPECIFICATIONS

PARAMETER	DESIGNATOR A	DESIGNATOR B
Wavelength	1.064 microns	1.064 microns
Laser Type	Nd:Yag	Nd:Yag
Pump Type	Diode-pumped	Diode-pumped
Pulse Energy	> 75 mJ	> 125 mJ
Divergence (90% energy)	< 250 $\mu$ rad	< 200 $\mu$ rad
Pulse Rate	8-20 Hz externally codable	8-20 Hz externally codable
Power Consumption	< 125 watts	< 200 watts
Voltage	24/28 VDC	24/28 VDC
Current	< 9 amps peak, 5 amps average	< 13 amps peak, 5 amps average
Built-in-Test	Yes	Yes
Aperture (common)	50 mm	50 mm
Eye Safety	Class 4	Class 4
Configuration	Coaxial LDRF	Coaxial LDRF
Communication Protocol	RS-232 or RS-422	RS-232 or RS-422
Weight (estimated)	$\leq$ 3.5 kg	$\leq$ 4 kg

### RANGEFINDER SPECIFICATIONS

Wavelength	1.535 microns
Laser Type	Erbium:glass
Pump Type	Diode-pumped
Pulse Energy	< 8 mJ
Divergence (90% energy)	< .5 mrad
Pulse Rate	1 Hz
Power Consumption	< 5 watts
Voltage	24/28 VDC
Current	< 1 amp
Maximum Range*	20 km
Minimum Range	200 m
Range Resolution	$\pm$ 2 m
Multi-target Detection	Yes
Built-in-Test	Yes
Aperture (common)	50 mm
Eye Safety	Class 1
Configuration	Coaxial LDRF
Range Logic	First pulse, last pulse selectable
Communication Protocol	RS-232 or RS-422

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

### 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.



CERTIFICATE NO. 04383  
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, C<sup>3</sup>ISR (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.

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