



EV10 and EV15 Vanadate Laser Marking Systems

The EV10 (10W) and EV15 (15W) vanadate laser marking systems are the latest advance in the E-series line of end-pumped solid-state lasers from Telesis Technologies. While suitable for a wide range of general marking applications, the outstanding beam quality makes them uniquely capable among IR lasers for marking of high resolution graphics or fine text of 2D codes. With a short pulse width and high peak power these systems are ideal for challenging marking applications such as heat sensitive materials (including silicon), plastics, or thin foils. The narrow spot size and good depth of focus allow greater flexibility, such as marking of curved surfaces, than achieved with fiber lasers.



The EV10 and EV15 offer an diode MTBF of over 20,000 hours and essentially maintenance-free operation until diode replacement.



The system is entirely air-cooled, avoiding the need for any external cooling system. The pumping diode is located in the controller and coupled by fiber to the resonator and scanning head, allowing for a robust and compact design which is easy to integrate into a production environment.



Laser Specs

Compliance.....	CDRH, CE, UID	Operating Temperature Range.....	18° to 30° C Non-condensing (65° to 86° F)
Wavelength.....	1064 nm	Humidity.....	10% to 85% Non-condensing
Laser Type.....	Fiber-coupled diode end-pumped, Q-switched Nd:YVO ₄ laser	Expected MTBF.....	20,000 hours maintenance-free diode pumping source
Q-Switch Frequency.....	10 kHz to 100 kHz	System Weight.....	Approx. 30 kg (67 lbs.)
Pulse Width (Duration).....	10 nanoseconds	Scanning Head Dimensions	
Mode.....	TEM ₀₀	EV10.....	75.9 cm (L) x 17.7 cm (W) x 18.0 cm (H) (29.9" L x 7.0" W x 7.1" H)
CW Average Power.....	EV10 — 10 Watts EV15 — 15 Watts	EV15.....	68.0 cm (L) x 16.2 cm (W) x 19.1 cm (H) (26.8" L x 6.4" W x 7.5" H)
Long Term Output Power Stability.....	Less than ± 2%	Input Power (selectable).....	115/230 VAC 50/60 Hz
Lens (Std).....	160mm Focal Length 110mm x 110mm Field (4.33" x 4.33")	Controller Dimensions.....	Std. Rack Mount 42 cm (W) x 14 cm (H) x 50 cm (L) (16.5" W x 5.5" H x 19.5" L)
Lens (Std).....	100mm Focal Length 65mm x 65mm Field (2.65" x 2.65")	Software.....	Merlin II LS® Software
Positioning.....	Visible Red Diode Light (650 nm)	Operating System.....	Windows® 2000, XP, Vista™ Desktop PC (Std), Optional Laptop
Optical Fiber Length.....	1.75 meters (5.75 feet)	Interface.....	Serial, I/O, and Host Capable
Cooling.....	Air-cooled, active thermo-electric		
Max. Power Consumption.....	Less than 500 Watts		



Features DATA MATRIX™ 2-D Code Marking Capability — Meets all Department of Defense UID Requirements

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