

DATASHEET

e-SolarMark+ CO₂ Laser Coding System

Matthews Marking Systems' e-SolarMark+ CO₂ laser coder is ideal for high-speed food, beverage, and pharmaceutical packaging applications, in addition to many different industrial applications. CO₂ lasers can permanently code onto cardboard, coated metals, glass, leather, paper, plastics, and wood. There are five power options to choose from, based on your speed and performance requirements.

The Matthews laser coding systems provide many interface options to connect to remote devices such as PLC's, packaging equipment, material handling equipment, and many other peripheral devices used in the manufacturing environment. Matthews' laser systems have the greatest optical hardware options, allowing the laser to be mounted in confined areas of a production line, and they are capable of running in static or dynamic mode. There are two control unit models (15" color touch screen interface or an OEM control unit without an interface) and Matthews provides free message design software with every laser system.

The e-SolarMark+ includes upgraded PC software, enhanced diagnostic features, and a user-friendly, 15" graphic interface. Control unit allows full editing of messaging while the laser functions in print mode.

FEATURES

- + Software includes preview and editing window for ease of use
- + Range of lens and scanning heads allows for a wide variety of focal lengths and marking areas
- + Vector quality, permanent coding of text, date and time codes, serial numbers, barcodes and 2D codes, and graphics
- + Clean and eco-friendly coding system
- + Improve overall equipment effectiveness (O.E.E.)



Communication

- + USB/RS232/Ethernet 10 Base T
- + Input/output connector for: system interlocks, remote start/stop, ready, marking, status signals, and remote key switch connection
- + Compressed air control system ready
- + 15 configurable user I/O's
- + SolPad job edition software available for Windows XP, Vista 7, 8

Languages

- + Language versions:
 - English Italian
 - Chinese Dutch
 - French Polish
 - German Swedish
 - Spanish Portuguese

Options

- + Control unit, touchscreen and OEM base
- + Scanning head mounting extension mod
- + Water cooling
- + Flexible Beam Delivery System
- + Product detector and shaft encoder
- + Fumes/dust extractor (with active carbon & HEPA filter)
- + Umbilical lengths 3m, 4m, 6m, 8m
- + Red laser pointer for marking position preview

		10.6 μM Wavelength				9.3 μM Wavelength		10.2 μM Wavelength					
LASER OUTPUT POWER		10W		30W		55W		20W 45W 30W 55W					
ELECTRICAL REQUIREMENTS		115V 60Hz/230V 50Hz, Single Phase											
POWER CONSUMPTION		450W		700W		1,300W		700W 1,300W 700W					
COOLING		Air cooled at ambient temperature 41-104° F (5-40° C) Up to 100% of laser duty cycle		Air cooled at ambient temperature 41-104° F (5-40° C) or Water cooled (HD e-SolarMark models only) at ambient temperature 104-113° F (40-45° C) or in dirty, dusty, humid environment. Up to 100% of laser duty cycle									
OPERATING ENVIRONMENT		Ambient temperature 50–140°F (10–40°C), suggested 69–80°F (15–30°C), up to 90%, non-condensing.											
ENCLOSURE TYPE		IP52, NEMA 12 / IP65, NEMA 4 (Optional)											
DIMENSIONS AND WEIGHT	Control Unit	L : 12.5" W: 15.6" H: 7" 22 lb	L: 318 mm W: 395 mm H: 178 mm 10 kg	L : 12.5" W: 15.6" H: 7" 22 lb	L: 318 mm W: 395 mm H: 178 mm 10 kg	L : 15.4" W: 18.3" H: 7" 31 lb	L: 390 mm W: 464 mm H: 178 mm 10 kg	L : 12.5" W: 15.6" H: 7" 22 lb	L: 318 mm W: 395 mm H: 178 mm 10 kg	L : 15.4" W: 18.3" H: 7" 31 lb	L: 390 mm W: 464 mm H: 178 mm 10 kg	L : 12.5" W: 15.6" H: 7" 31 lb	L: 318 mm W: 395 mm H: 178 mm 10 kg
	Marking Unit (dimensions for standard marking unit with fi8 scanning head and no modules)	L : 32.2" W: 5.5" H: 5.5" 29 lb	L: 818 mm W: 140 mm H: 140 mm 13 kg	L : 27.6" W: 5.5" H: 5.5" 29 lb	L: 700 mm W: 140 mm H: 140 mm 13 kg	L : 34.6" W: 5.5" H: 5.5" 40 lb	L: 878 mm W: 140 mm H: 140 mm 18 kg	L : 27.6" W: 5.5" H: 5.5" 29 lb	L: 700 mm W: 140 mm H: 140 mm 13 kg	L : 34.6" W: 5.9" H: 5.9" 40 lb	L: 878 mm W: 150 mm H: 150 mm 18 kg	L : 27.6" W: 5.5" H: 5.5" 29 lb	L: 700 mm W: 140 mm H: 140 mm 13 kg

Marking Specifications					
Flat field (F-Theta) lens					
LENS TYPE	LF2	LF70	LF4	LF140	LF210
MARKING FIELD IN mm	50 x 50	70 x 70	100 x 100	140 x 140	210 x 210



Large Area Marking Specifications									
LENS TYPE	LF420			LF480			LF620		
MARKING FIELD IN mm	300x300	400x250*	460x160	350x350	480x300*	600x220*	450x450	600x380*	700x300*

*Note: Print area configurable on request after Solaris marking lab testing is complete.

