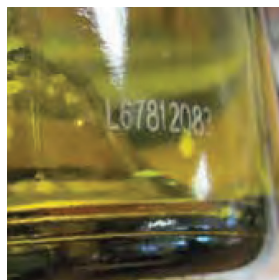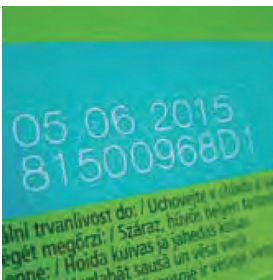**DATASHEET**

e-SolarMark+ CO$_2$ Laser Coding System

Matthews Marking Systems' e-SolarMark+ CO$_2$ laser coder is ideal for high-speed food, beverage, and pharmaceutical packaging applications, in addition to many different industrial applications. CO$_2$ 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

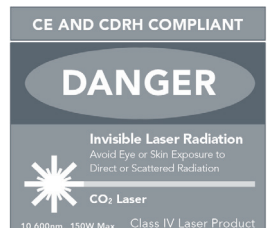|		10.6 µM Wavelength			9.3 µM Wavelength		10.2 µM Wavelength	
LASER OUTPUT POWER		10W	30W	55W	20W	45W	30W	55W
ELECTRICAL REQUIREMENTS		115V 60Hz/230V 50Hz, Single Phase						
POWER CONSUMPTION		450W	700W	1,300W	700W	1,300W	700W	
COOLING		Air cooled at ambient temperature 41-104° F (5-40° C) Up to 100% 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" 22 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: 5.5" 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*

SOLARIS LASER

CE AND CDRH COMPLIANT

DANGER

Invisible Laser Radiation
Avoid Eye or Skin Exposure to Direct or Scattered Radiation

CO₂ Laser

10,600nm, 150W Max   Class IV Laser Product

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

⋈ **Matthews Marking Systems™**

matthewsmarking.com