3-Watt UV laser coder
e-SolarMark+ eDLV

High-definition and damage free coding for sustainable materials

The e-SolarMark+ eDLV 3-Watt UV laser coding machine offers high-quality coding with minimal heat transfer, preserving substrate surface integrity. Ideal for high-density and delicate materials, where it delivers exceptional performance in high-speed applications. Additionally, it provides solvent-free, chemical-free, and permanent markings.

Your benefits

- High contrast, damage free and permanent coding on different substrates

- Lower OPEX with fewer line stoppages, increased efficiency and no chemicals—ensures greater sustainability

- Virtually maintenance-free, reduced production downtime

- 125% larger screen area and intuitive user interface for increase in operator efficiency

- Easy integration into production line thanks to compact and modular design

Product features

High-definition, damage-resistant, permanent codes

- Perfect solution for damage free and high contrast coding on HDPE, LDPE, mono films, PP and PE substrates

- Unique marking method, and unique marking algorithm

- Coding of alphanumerical texts dates / timers, serial numbers, barcodes, 2D codes and graphics

- Compact and modular design, high integration flexibility

- Meets the highest standard of safety for E-stop and interlock circuits per ISO 13849-1 / PLe[1]

Lower OpEx, higher efficiency and chemical-free

- No consumables needed

- Virtually maintenance-free

- Higher reliability means higher productivity and fewer line stoppages

- Eliminating solvents and chemicals contributes to achieving sustainability goals
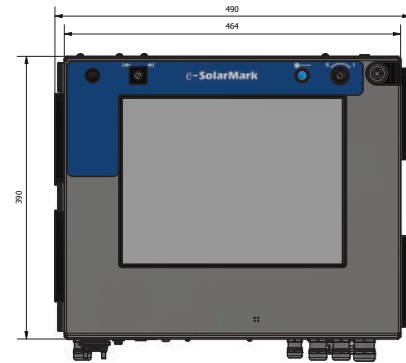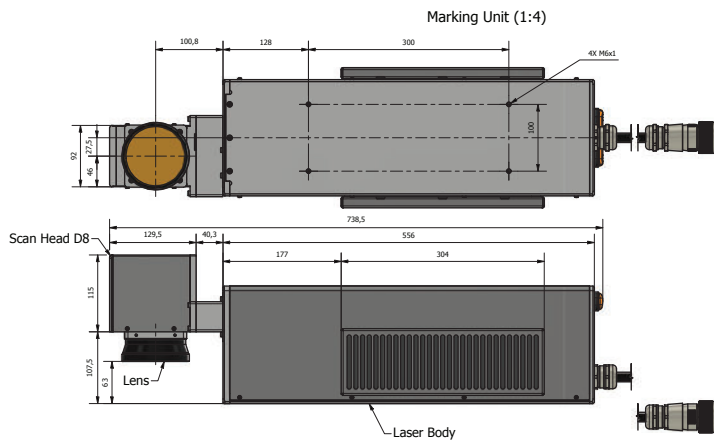
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e-SolarMark+ eDLV Specifications

Marking Unit (1:4)

Scan Head D8
Lens
Laser Body

Laser type and properties

3W 355 nm DPSS laser, digital galvanometers

Applications/substrates

Flexible film, metals, some polymers (e.g., HDPE, PP, PVC, PS, etc.)[2]
Coding in stationary
or moving "on the fly" applications

Marking speed (max.)

Characters/sec:[2]
Up to 1600 char/s

Line speed:[2] Up to 720 m/min

Print features

Number of text lines:
Limited only by character height and allowable print area

Character height: From 0.2 mm to allowable print area

Fonts: English/Latin, Arabic, Cyrillic, Hebrew, Korean, Japanese (Katakana, Hiragana, Kanji), Chinese (Hanzi) OCR, and Unicode

1D barcodes:
Code 39, Code 128, Code 2 of 5 (industry), I2 of 5, EAN 8, EAN 13, Code 128-A, Code 128-B, UPC-A, UPC-E, EAN 128, ITF 14

2D barcodes:
Data Matrix ECC200, QR Code, HIBC QR Code, Micro QR Code, Aztec, DotCode and HIBC Aztec

Logos, graphics:
DXF, PLT, FPS, EPS, PS, SVG, AI, CDR

Data automation:
Static, user-prompted, alphanumeric counter, serial, multi-code/calculated field (e.g., yyyymmddnnn)

Time/date handling:
Standard, custom, time / day offsets, start week, update and rounding rules, custom calendars

Print field manipulation:
Linear, angular, rotation, mirror, circular, scaling

Interface and control

Connections:
Ethernet TCP/IP, RS-232, USB, digital I/O, sensor, encoder, shutter, fume extractor controls, alarm beacon, start/stop, safety shutter, dual channel interlocks[1]

Direct laser control:
USB / RS232 / Ethernet

Pointing diode:
Standard, configurable: rectangle outline, content

User interface:
15" touchscreen user interface in languages: English, Chinese, French, German, Spanish, Italian, Dutch, Polish, Swedish and Portuguese

Other UI options:
Remote PC access

Software solutions:[3]
SolPad, **CoLOS®**

Industrial interfaces:
Optional Interface: OPC UA (**CoLOS®**)[3], PackML V3.0

Safety interlock:[1]
Two independent interlock circuits (GIC – General Interlock Circuit & SIC – Shutter Interlock Circuit) enable system integration according to category 4 of machinery safety (EN ISO 13849-1)

Options and accessories

Scanheads:
Standard SH 90° angle

Lens options: print area,
150x150 mm; FL= 250mm;
300x300 mm; FL= 511mm;

Misc: Standard laser accessories: encoder, sensors, beacon towers, fume extractors, etc.

Physical characteristics
Ingress protection: IP52 / NEMA 12

Safety performance level:
ISO13849 safety performance level: PLe[1]; Category 4 machine safety

Operating temperature range:
5° C (41°F) to 40° C (104° F)

Operating humidity:
10 to 95% non-condensing

Electrical power supply:
1 phase 115/230 V 50/60 Hz, 400W

Controller dimensions:
229 mm x 422 mm x 490 mm

Printhead dimensions
210 mm x 223 mm x 739 mm

Controller weight: 18 kg

Printhead weight: 22 kg

Umbilical length: 3.3, 6, 8 m

Outer material:
Controller cabinet: stainless steel; head: stainless steel and aluminum

Cooling:
Fan cooled. No plant air required for cooling

1 – Applicable only with use of Safety Box
2 – Variable based on specific application requirements and substrates
3 – Regional availability applies

CE and CDRH compliant

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LASER INSTITUTE OF AMERICA
Solaris Laser
LIA member since 1996

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