



Medium-duty fiber laser coder **e-SolarMark+ eFLS**



Long-lasting laser coder for permanent, readable and chemical free coding

The e-SolarMark+ eFLS fiber laser is an exceptional solution for permanent and readable coding. Engineered to offer over 100,000 plus maintenance-free working hours and to guarantee costs-effective operation.

The e-SolarMark+ eFLS fiber laser units deliver superb marking of alphanumerical texts, dates, timers, serial numbers, barcodes, 2D codes, and graphics.

Your benefits

- Fast and permanent coding on different substrates
- Lower OPEX with fewer line stoppages, increased efficiency and no chemicals—ensures greater sustainability
- Virtually maintenance-free
- Increased efficiency, reduced maintenance and fewer line stoppages
- 125% larger screen area and intuitive user interface for increase in operator efficiency
- Easy integration into production line thanks to compact design

Product features

High-definition, damage-resistant, permanent codes

- Clean, readable and permanent coding on foils, plastic parts, metals, and other various materials
- Unique marking method, and unique marking algorithms
- Coding of alphanumerical texts, dates / timers, serial numbers, barcodes, 2D codes and graphics.
- Meets the highest standard of safety for E-stop and interlock circuits per ISO 13849-1 / PL¹

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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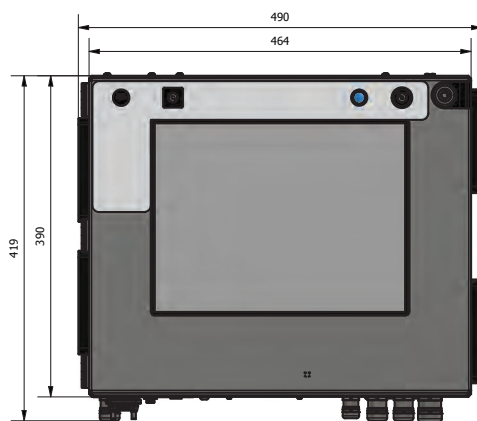
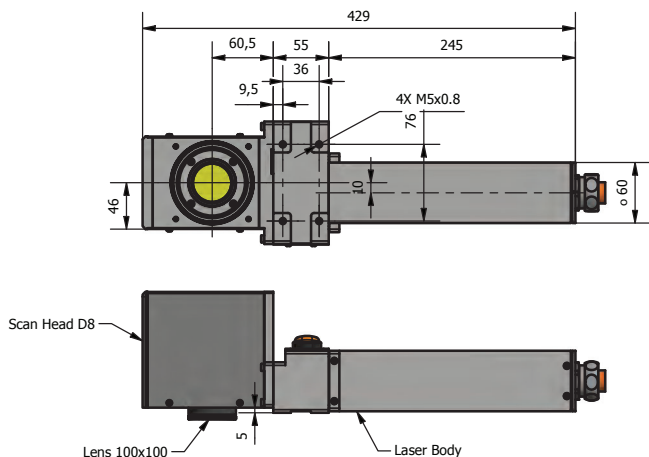


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+31 (0)26 741 00 00

info@dekoningh.nl | www.dekoningh.nl

e-SolarMark+ eFLS Specifications



Laser type and properties

35W 1064nm ytterbium pulsed fiber 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 interlocks¹

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:

SolPad, CoLOS[®]

Industrial interfaces:

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

Safety interlock:

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) to achieve Performance Level up to PLe.

Options and accessories

Scanheads:

Standard SH 90° angle

Lens options: print area,

100x100 mm; FL= 160mm;
150x150 mm; FL= 254mm

Physical characteristics

Ingress protection: IP52 / NEMA 12

Safety performance level:

ISO13849 safety performance level: PLe¹; 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

122 mm x 126 mm x 429 mm

Controller weight: 21 kg (46 lbs)

Printhead weight: 5 kg (11 lbs)

Umbilical length: 2.7 m

Outer material:

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

Laser source MTBF: 100,000 hours

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



Specifications are subject to change without notice as products are continually improved.
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