Linx FSL20 and FSL50
Fibre Laser Coders

The Linx FSL20 and FSL50 fibre laser coders deliver precision marking for complete traceability onto a wide range of materials. Designed for simple integration into both moving and static applications, they also deliver reduced downtime and costs due to their low maintenance and long laser source of over 100,000 hours.

Easy to integrate into production
- Compact design and flexible laser head - easy integration into OEM machines, and both static or moving workflows
- Small marking head and supply unit enables fast integration maximising uptime

- Two beam orientation options: standard or with a Beam Turning Unit for 90° rotation – for coding in any orientation
- Air-cooled lasers which can be placed where they are needed, and not near factory air source or a bulky water-cooled system.
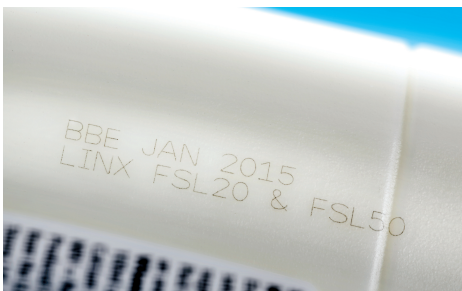
Complete traceability – on more materials
- Linx FSL20 and FSL50 fibre lasers produce permanent codes on a wide range of materials, including metal, plastics and packaging foils
- Extremely fine spot size and well-refined beam quality produces consistently high-quality codes – ideal for marking smaller products, promotional codes or anti-counterfeiting, or large amounts of information into small areas
- Unrestricted coding applications mark a range of fonts, codes and graphics over multiple lines – meeting your coding needs now and in the future

- Choice of four lenses to match the right code to the right product, without compromising on code quality or speed
- Choice of power FSL20 (20W) or FSL50 (50W) models
- The steered beam fibre laser technology can code at high speeds – ideal for coding onto a wide range of line speeds and substrates.

Low maintenance for less downtime
- Built for reliability - the laser source lasts more than 100,000 hours
- IP54-rated so marking heads can be used in a wide range of environments
- Air-cooled for extra energy efficiency, with none of the leaks or extra maintenance associated with water-cooled lasers
- LinxDraw software included – message creation is quick and easy, saving time on product setup and changeovers.
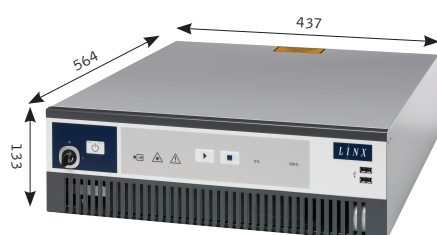
Linx FSL20 & FSL50
Fibre Laser Marking System

Dimensions (mm)

108

130

440

Supply Unit

437

564

133

Four focussing lenses for a wider range of working distances

Focal length

100	163	254	420

Working Distance (mm)

129	219	350	543

Max Width (mm)

84.65	142.24	221.66	366.52

Max Height (mm)

107.40	181.86	267.81	498.47

Laser Details

Laser type	Ytterbium (Yb) pulsed fibre laser
Laser class	4 (IV) (acc. to DIN EN 60825-1:2008-05)
Nominal laser output	20W and 50W
Laser wavelength	Central emission wavelength: 1064nm (min: 1055nm, max: 1075nm)
Laser tube warranty	2 years
Laser source life expectancy	> 100,000 hours

Performance

Marking speed	1 to 6,000 mm/s (typical).
No of lines of text	Only limited by character size and marking field
Character height	Up to marking field
Print rotation	0- 360 degrees
Operation mode	pulsed (Q switch)

Physical Characteristics

Material	Painted sheet metal housing
Weight: marking unit/supply unit	8kg / 19kg
Laser head protection class	IP54
Conduit length	2.7m
Minimum bend radius of conduit	60 mm
Head mounting options	90-degree (standard) and straight-out (option)
Cooling system	Air cooled with automatic overheat detection
Supply voltage / frequency	Auto selection range 100 to 240 V / 50/60 Hz (auto range)
Maximum power consumption	500 VA
Operating temperature range	10 - 40° C ambient
Humidity range	10% to 90% relative humidity, non-condensing

LinxDraw software

Graphics-orientated user interface for intuitive and fast preparation of complete code templates on PCs
- Text/data/graphics/editor
- Easy access to standard CAD and graphic programs via import functions
- WYSIWYG
- Password protected security levels

Marking Formats

- Standard fonts (Windows® TrueType®/TTF; PostScript®/PFA, PFB; OpenType®/OTF)
- Individual fonts such as high-speed or OCR
- Machine-readable codes: Bar codes: BC25,BC25I, BC39, BC93, EAN 8, EAN 13, BC128, EAN 128, Postnet, SCC14, UPC_A, UPC_E, RSS14TR, RSS14ST, RSS14ST0, RSSLIM, RSSEXP Data matrix 2D codes: ECC000, ECC050, ECC080, ECC100, ECC140, ECC200, ECC PLAIN, QR
- Graphics/graphic components, logos, symbols, etc. (the most common file formats such as DXF, JPG, AI can be imported)
- Linear, circular, angular text marking; rotation, reflection, expansion, compression of marking contents
- Sequence & serial numbering; automatic date, layer, time coding, real-time clock; online coding of individual data (weight, contents, etc.)

Language capabilities – Linx (Draw UI)

Arabic, Czech, Danish, Dutch, English, Finnish, French, German, Italian, Japanese, Korean, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Slovak, Spanish, Swedish, Thai, Traditional Chinese, Turkish, Ukranian

External interfaces

Encoder inputs	Dual channel, 24 V, hard wire. CHA; CHB; Index
Product sensor input	Single, PNP only. 24 V, hard wire
Ethernet (to PC)	RJ45 connector (100 Mb/s)
Customer interface	Input and output signals are 0 V or +24 V
Input signals	Start Marking; Stop Marking; Shutdown; Shutter Lock; External Interlock; Exhaust error; Error Confirm; Filter Full; Error Status Customer; Job Select (8-bit parallel inputs); External Event (job selection strobe)
Output signals	Ready to Mark; Laser Ready; Marking; Shutter Closed; Exhaust On; Error; Bad; Good; PC Connected; Acknowledge (confirms successful job selection)
Bi-directional signals	RS-232 (TXD, RXD, CTS, RTS)
Mains power connection	IEC mains cable socket allowing changeable country-specific cable and plugs
Control	LinxDraw® software

Regulatory approvals

CE

www.linxglobal.com

THINKING ALONG YOUR LINES