# **Dx660i** CO$_2$ Laser Coder

## Coding with the energy of light

The **Dx660i** delivers outstanding code quality at industry leading speeds*. Ideal for the requirements of high-speed production and future regulatory compliance: larger code contents, serialisation, traceability and machine readable code formats.

Meeting Industry 4.0 standards they are ready for today's fast-paced production and integrate seamlessly into your production environment. Options for automated label deployment, remote monitoring, and diagnostics via Domino's cloud-based services help to reduce human intervention, errors and downtime.

## Flexibility, Integration and Performance

**For line integration:**

◆ More than 50 standard beam delivery options, a 360° rotatable scanhead, and customisation options for specific needs.

◆ Seamless integration into ERP, WMS, and MES systems.

◆ Web-based user interface and easy operation via an intuitive HMI.

**For performance:**

◆ Advanced coding algorithm increases coding speed* by up to 30% while maintaining superior code quality.

◆ Options for coding automation, **R-Series** vision control, and near real-time remote monitoring and diagnostics via Domino's cloud-based services help to ensure only perfectly coded products enter the supply chain.

**For tough environments:**

◆ Dusty, wet, sticky – no problem with IP54/IP65 printheads and IP55 controller for protection.
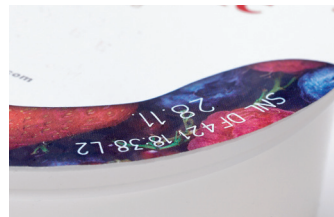
◆ Performs at 45°C ambient temperature.

## Permanent traceability coding in excellent quality

PET – ideal for the beverage industry, designed for high production rates and with optional IP65 certification.

Glass – the **Dx660i** codes at speed in excellent quality even on tough substrates.

Films (PP, aluminium) – ideal for pots and stickpacks: large marking fields, pin-sharp small characters, gentle coding that helps keep protective barriers intact.

Cardboard – smart 2D coding that's ready for GS1 Sunrise: variable data helps unlock the full potential and supports authentication and anti-counterfeiting.

*coding speed depends on the individual application; **Dx-Series** has been benchmarked against Domino **D-Series**

## www.domino-printing.com

## Domino. Do more.

# A complete solution

Our services are designed to provide operational insight so you can eliminate downtime and maximise production efficiency.

## Operational support

An outstanding level of care, wherever you are. Our **SafeGuard** packages provide high-quality, on-site assistance and AR-enabled remote guidance from our engineers. **SafeGuard** helps to ensure we can be with you when you need us most.

## Automatic code inspection

Ensure every code that leaves your factory is present and correct, and free up operator time. With the **R-Series**, Domino's range of vision control systems, you can automate your code inspection to validate code presence, placement, and readability.

## Automation

Centralise your label management: **Domino Automation** easily integrates into your manufacturing process as well as your ERP/MES systems. It makes automatic changeovers safe and simple, helping you to reduce waste and drive sustainability initiatives while increasing productivity and efficiency.
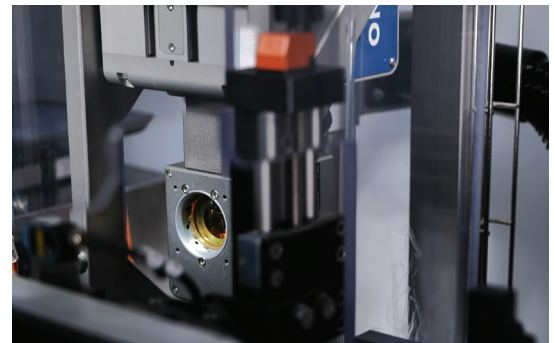
## Smart production

Gain operational insight by connecting your printer to Domino's cloud-based services. Obtain production analytics dashboards and receive system error alerts. Our cloud service provides you with the information you need to run your operations more efficiently.

## Domino experts at your side

From finding the best solution to installation and support throughout the lifetime of your Domino laser coding systems our experts are at your side.
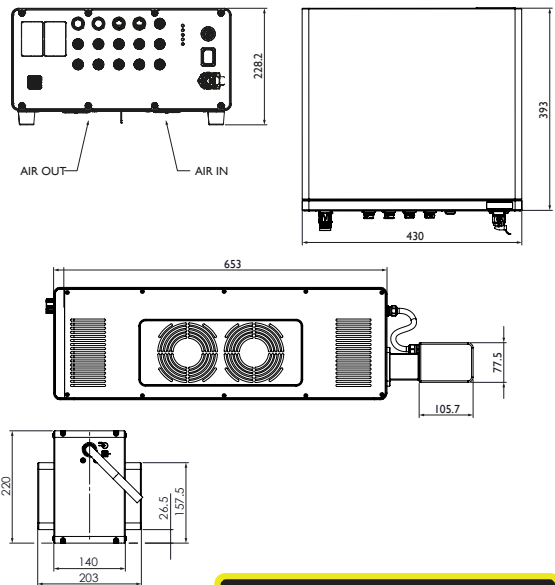
◆ **Testing:** We use a scientific approach to analysing substrates and samples to help ensure that we find the ideal laser for your application.

◆ **Safety:** is paramount when operating laser systems: laser guarding, extraction to remove potentially damaging particles, proper installation, prevention of access in operation – we have you covered.

◆ **Support: Dx-Series** lasers rarely need attention, but if, we're here to help. We utilise AR to troubleshoot issues remotely; if on-site support is needed, our technicians will come prepared to get your line running as fast as possible.

## Technical specification Dx-Series Coding System

| Laser Type | Dx660i |
|---|---|
| Laser technology | $CO_2$ |
| Laser source | 60W, wavelengths 9.3, 10.2, 10.6µm |
| Expected lifetime | 50,000h MTBF |
| **Coding Format** | |
| Coding content | Laser optimised fonts for high-speed marking and standard industrial fonts. Graphics, logos, standard industrial machine readable code (1D, 2D) formats (DataMatrix, GS1, QR). Intuitive GS1 Digital Link support. Supporting traceability with serialisation data, sequential and batch numbering. Synchronized clock / Network Time Protocol support (NTP). |
| Focal length | from 80mm to 600mm |
| Marking field | from min. 57x57mm$^2$ to max. 379x582mm$^2$ |
| Advanced Features | Aiming beam, Aim & Code |
| **User Interface** | |
| User Interface | Web based user interface, option to configure multiple parallel access points, optional 10.1'' touch panel |
| Interface Options | Domino Cloud Interface (DCI), Domino Coding Automation |
| **System Specification** | |
| Scan head orientations | Multitude of scan head orientations including 360° rotatable variant. More than 50 beam orientation variants. Additionally support for customisation and solution integration. |
| Ingress Protection | Laser Module: IP54 certified fan cooled, optional IP65 certified water cooled Controller: IP55 |
| Operating temperature | 5°C - 45°C |
| Operating humidity | max. 90% RH, non-condensing |
| Electrical supply | multivoltage 90-264V, 50/60Hz |
| **Input and Outputs, Interfaces** | |
| Inputs/outputs | Multiple inputs and outputs available e.g. extractor, compressed air kit, water chiller, encoder, product detect (NPN, PNP), beacon and interlocks, standard GPIO, additional optional GPIO available. |
| Interfaces/Protocols | Ethernet, USB, Dynamark Protocol, EtherNet/IP™ |
| **Options** | |
| Accessories | Extraction including optimised shrouds, airknife for lens cleaning, multiple brackets, cables and stands for integration support |
| Certification | Marking: CE**, cTÜVus, UKCA / Fulfills requirement: NRTL, ROHS, FDA listed, EMC, FCC |

** Partly Completed Machinery as per Machinery Directive (2006/42/EC), CE marking according to ROHS (2011/65/EU) and EMC(2014/30/EU)

AIR OUT  AIR IN

228.2  393  430  653  77.5  105.7  220  26.5  157.5  140  203

**DANGER - VISIBLE AND INVISIBLE LASER RADIATION**
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION

| $CO_2$: λ = 9-11µm CLASS 4 LASER PRODUCT | LD: λ = 655nm CLASS 2 LASER PRODUCT |
|---|---|
| | IEC60825-1:2014 |

## TALK TO AN EXPERT

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