nimax

CODING AND MARKING

Domino Dx
CO_2 Laser Markers

Fast and flexible laser marking designed for reliable long-term production

Domino Dx CO_2 Laser Markers

Flexibility, reliability and performance

Interaction with consumers and waste reduction through more sustainable solutions are key elements in modern industry.

With **Domino Dx Series CO_2 laser markers**, you have a marking solution that can meet future regulations thanks to their ability to produce GS1-compliant markings and even larger and more complex scannable codes, such as GS1 QR codes.

EASY TO INTEGRATE

- Over 50 standard optical configurations, a 360° rotating scan head, and customization options for specific needs.
- Simple integration with ERP, WMS and MES systems.
- Web-based user interface enabling streamlined operation via an intuitive HMI.

BETTER PERFORMANCE

- Significantly higher coding speeds for high-volume applications thanks to the new HS High-Speed scan heads.*
- Wide marking field reducing costs in wide-web applications thanks to the new LF Large-Field scan heads..

SUITABLE FOR DEMANDING ENVIRONMENTS

- Dusty, humid and sticky production environments are no longer a problem thanks to the IP54/IP65 protection ratings of the print heads and the IP55 rating of the controller.
- Capable of operating at temperatures up to 45°C.

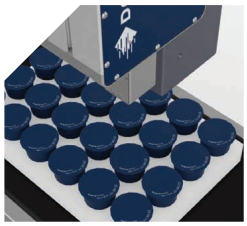
*Marking speed depends on the individual application. Domino Dx Series laser markers were compared with Domino D-Series i-Tech markers.

Advanced technology

Domino has over 30 years of experience in developing laser coding systems that are renowned for their quality and longevity. Utilizing the latest technological advances and careful attention to detail, Domino's latest generation Dx Series CO_2 laser markers have been **designed to integrate seamlessly** into production environments; they are **easy to install, operate and maintain,** offering a superior coding solution.

Adjustable and telescopic optical paths, a 360° rotatable scan head, and customisation options enable integration of the laser into almost any line. An optional IP65-certified laser head and IP55-rated controller ensure operation even in wet, sticky or dusty environments.

The intuitive user interface works on all devices with a standard browser and is common across the entire Domino X Series product range. An optional modern touch panel is also available.



Special scan head for large marking fields and web applications.

Since details matter, Domino has incorporated design features that simplify both integration and operation, such as the conduit between the laser head and controller with **90° angled connectors**.

The LED indicator on the laser head provides instant visibility, clearly showing when the laser is active.

Domino Dx Series laser markers are designed to operate at **temperatures up to 45°C**.

Ready for the evolution of the 2D code

GS1 is leading the global shift from linear barcodes to GTIN-enabled QR and 2D codes, powered by GS1.

But there is much more to it than just the GTIN. GS1 QR codes can provide a wide range of supply chain and consumer-focused information with a single code, revolutionizing the way information and interactions are delivered through product packaging.

Targeted information can be displayed to manufacturers, retailers, and consumers, enabling different levels of interaction.

Processes and data can be dynamically linked throughout the entire supply chain, enabling a product to be tracked throughout its lifecycle.

Brands can use QR codes to interact with consumers while providing all relevant information through a simple scan with a smartphone.

All information is available from a single QR code, freeing up space on labels and packaging.

MANUFACTURERS
- Serialisation and traceability
- Product recalls
- Logistics

RETAILERS
- Serialisation and traceability
- Inventory management
- Customer loyalty

CONSUMERS
- Product information (e.g. allergen list)
- Marketing and promotions
- Reviews

From a laser to a complete solution

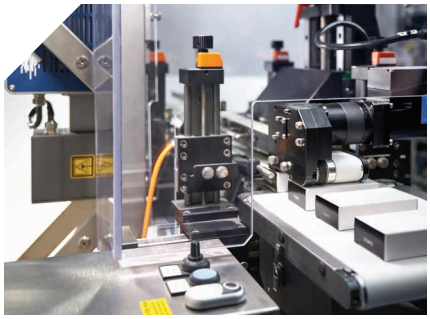
We know that product coding and marking goes far beyond simply using a marker. To meet the needs of modern production environments, Domino coding solutions distributed by Nimax include everything you need for a complete solution.

• **Testing:** Domino laser laboratories use a scientific approach to analyse substrates and samples, ensuring the ideal laser for every application.

• **Customisation:** Domino offers tailor-made hardware adaptations, including laser protection, integration into ERP/WMS/MES systems and a web-based user interface.

• **Safety:** Safety is paramount when using laser systems. This includes laser protection, removal of particles that can damage equipment, safe installation and prevention of access during operation.

Scientific analysis of substrates and sample testing in Domino's laser laboratories.



Customised laser protection; laser safety training courses are also available.

Domino DPX fume extraction systems effectively remove fumes and particulate matter from the marking process.

DISCOVER NIMAX **DIGITAL INNOVATIONS**

Line Strategy by nimax

Line Strategy is the application that gives you full control of your production line from a single workstation:

- Connects machines of any brand on the line;
- Reduces human error and enables centralized production control;
- Provides real-time reports on production performance;
- Reduces costs and streamlines tooling, control, and maintenance processes;
- Interfaces with company MES and ERP systems.

MyNimax Service Portal is your central platform for managing your Nimax machine fleet:

- AI-powered support with ai.max, available 24/7, for fast issue resolution;
- Integrated e-shop for easy ordering of consumables and spare parts;
- Unlimited remote assistance from our technical support team;
- Complete service and maintenance history.

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Distributor

DOMINO

Label replacement: unlimited text lines and complex 2D codes for use on label-free packaging.

Glass: deliver fast, high-quality coding even on the most challenging substrates.

Flexible films: ideal for flexible packaging. Large marking fields with small, sharp characters.

Cardboard: GS1-compliant 2D codes. Variable data improves product authentication and helps prevent counterfeiting.

PET: ideal for the beverage industry, designed for high-speed production lines with optional IP65 protection.

Flexible paper packaging: advanced marking algorithms enable coding on modern sustainable packaging without compromising the protective barrier integrity.

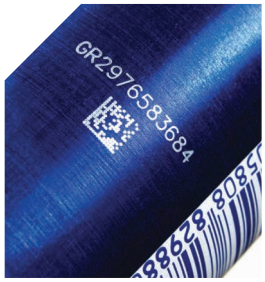
Labels: Domino Dx Series can be easily integrated with labelling systems for fast and accurate coding on labels.

Plastic blister packs: clear, durable codes with reliable performance even on high-speed production lines.

Cork: high-resolution marking of logos and graphics.

Paper labels: marking on labels for glass bottles at speeds of up to 70-90k bph.

Industrial glass: designed for tempered and laminated glass.



Painted metal: precise and consistent marking on flat, concave and convex surfaces.

Optimized efficiency

Advanced coding technology delivers outstanding performance. The Dx Series combines intelligent scan heads, digital scanning technology and optimized coding algorithms to achieve higher speeds and superior code quality.

Permanent traceability with consistently high code quality

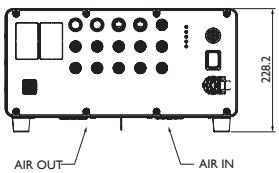
Domino Dx Series CO_2 laser markers deliver high-quality coding across a wide range of materials, supporting the requirements of industries such as food, beverage, life sciences and cosmetics.

Technical Specifications

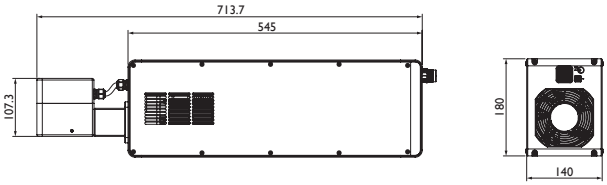
Laser Type	Dx260i	Dx360i	Dx660i	Dx1060i
Laser technology	CO_2			
Laser source	20W, wavelengths 9.3, 10.2, 10.6µm	30W, wavelengths 9.3, 10.2, 10.6µm	60W, wavelengths 9.3, 10.2, 10.6µm	100W, wavelengths 9.3, 10.2, 10.6µm
Expected lifetime	50,000 hours MTBF			
Coding Format				
Coding content	Laser optimised fonts for high-speed marking and standard industrial fonts. Graphics, logos, standard industrial machine readable code (1D, 2D) formats (Data Matrix, GS1, QR). Intuitive GS1 Digital Link support. Supporting traceability with serialisation data, sequential and batch numbering. Synchronised clock / Network Time Protocol support (NTP).			
Focal length	From 80mm to 600mm			
Marking field	From min. 57x57mm to max. 379x582mm			
Advanced features	Aiming beam. Aim e code			
User interface	Web based user interface, option to configure multiple parallel access points, optional 10.1'' touch panel			
System Specification				
Scanhead orientations	Multitude of scanhead orientations including 360° rotatable variant. More than 50 beam orientation variants. Support for customisation and solution integration.			
IP protection	Laser module: IP54 certified fan cooled, optional IP65 certified compressed air cooled Controller: IP55 certified		Laser module: IP54 certified fan cooled, optional IP65 certified water cooled Controller: IP55 certified	
Operating temperature	From 5°C to 45°C with continuous duty cycle (100%)			
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	CE**, cTÜVus, UKCA certified. Compliant with NRTL, ROHS, FDA, EMC, and FCC.			

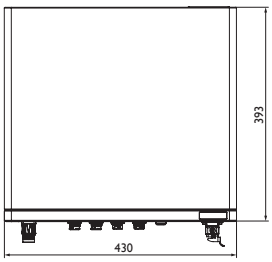
**Machinery partially completed in compliance with the Machinery Directive (2006/42/EC), CE marking according to ROHS (2011/65/EU) and EMC (2014/30/EU)

Dx-Series controller

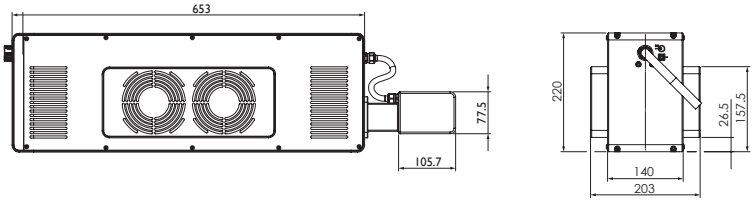


Dx260i/Dx360i





Dx660i



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