

## Glass marking

with the laser marking module c-mark





## Advantages:

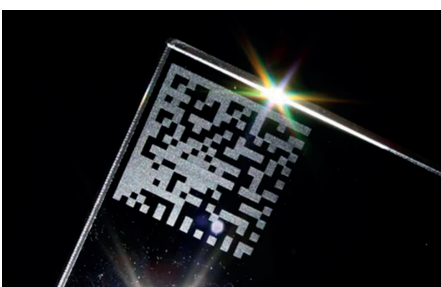
- High marking quality and durability
- Direct glass marking, no additional material required
- No weakening of the glass in the marked area
- Easy service
- Electronic readability
- Individual product code for referencing
- Marking often takes less than one second
- High flexibility of marking motifs (QR codes, data matrices, barcodes, customer-specific profiles, dxf files)
- Professional software with simple user interface
- Low power consumption
- Marking of additional materials possible

c-mark consists of a marking module with a laser, a 2D scanner and a focusing lens, which is optionally available with variable focal lengths.

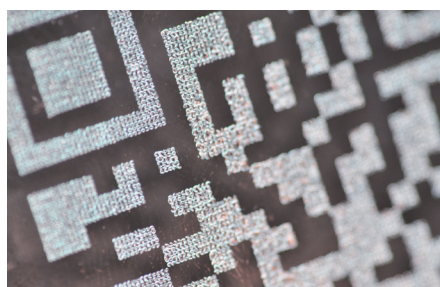
A special adapter plate enables simple and flexible integration of the lasermarking module into the existing system technology and simplifies maintenance and replacement.

The rotatable laser scan head enables variable exit of the laser beam, so that processing can also be carried out can also be carried out simply "overhead", for example.

## Applications



2D barcode generated with c-mark ...



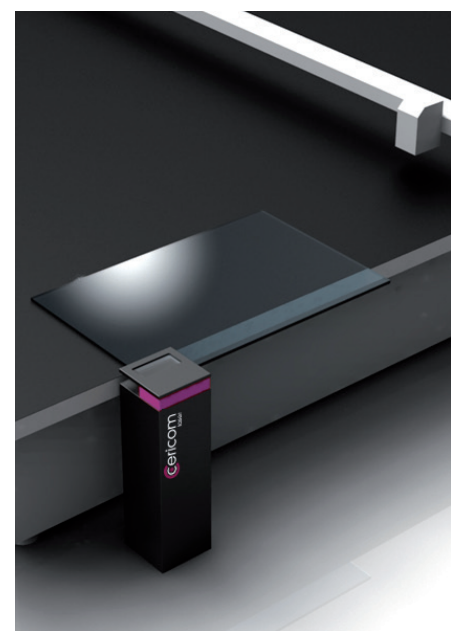
... in the highest resolution



Perfect marking even in very small sizes



Not only for identification, but also for finishing and decorative purposes



c-mark module on the horizontal glass processing machine c-matrix

c-mark can be used wherever high quality markings are required or copyright is an issue for example, in the marking of safety glass, in the automotive industry, in medical technology or for jewelry and perfumes.

c-mark enables easy integration into existing plants and machines and is also available as an alternative "stand-alone solution".



Stand-alone version of the c-mark module

Parameter	c-mark-economy			
Laser				
Laser	CO <sub>2</sub>			
Max. laser power	30 W			
Beam quality	M <sup>2</sup> <1.2			
Polarization	Random			
Rise time	< 90 µs			
Power stability	± 6% from cold, guaranteed			
Cooling	Air of fan			
Optical system				
Lens-Focal length (ZnSe)	F-75	F-100 (standard)	F-150	F-200
Marking area [mm x mm]	50 x 50	70 x 70	105 x 105	140 x 140
Focus Diameter [µm]	~ 170	~ 210	~ 290	~ 360
Resolution [dpi]	~ 145	~ 115	~ 90	~ 70
Max. mark speed	1000 marking dots / sec			
Workstation				
Mounting Angle of Scanner (min. Working distance)	0° (77.8 mm); 90° (49.1 mm); 180° (56.1 mm); 270° (49.1 mm)			
Color	aluminium brushed, RAL 4004			
Control				
Computer	Integrated Shuttle PC, Windows ® 10			
Interfaces	2x USB, 2x Ethernet, 1x HDMI			
Interfaces Laser Control	Laser-Interlock, Marking-Start (24 VDC), Marking-Stop (24 VDC), E-Stop, Error-Reset, Laser-Busy, optional digital I/O's (24 VDC)			
Software	C-Control V3 (C-Mark Edition)			
Options / Accessoires				
Optional lenses (ZnSe)	F-75, F-100, F-150, F-200 (others on request)			
Extended I/O interface	Additional in- and outputs, 24 VDC			
Additional optional accessoires	- Foot switch for efficient and user friendly control - Exhaust systems			
Industrial PC – high performance	Optional and more performant version of Shuttle PC (CPU), HDD, RAM, graphics card) for graphical applications			
Dimensions / Installation / Laser Safety				
Dimensions marking module (L x H x W in mm)	774 x 178.5 x 143			
Weight of marking module (incl. laser and laser scanner)	18 kg			
Dimensions control cabinet (L x H x W in mm)	250 x 720 x 500			
Weight of control cabinet	Ca. 20 kg			
Cable length	3 m (standard) up to 20 m draig chain compatible			
Ambient conditions	Operating temperature range +5 to +35° C. Relative humidity max. 90 %; Non-Condensing			
Electrical Requirements	115 - 230 VAC, 16 A, 50/60 Hz, 1/N/PE			
Power Consumption	< 1000 W (incl. laser cooling)			
System Protection	Marking Head: sealed against spray water (IP 54) Laser Rack Unit: dust protected (IP 20)			
Laser Class	CDRH Laser Safety, Laser Class 1-4 (depends on integration situation), CE certified			



