

Economy Diode

Built to last

Laser marking with guaranteed quality

When marking a workpiece, the goal is to apply a permanent, high-contrast, high-resolution identifying mark to it. The impact on the material, along with any changes to its properties, must be kept to a minimum.

Economy Diode laser systems are the perfect solution for fulfilling these requirements.

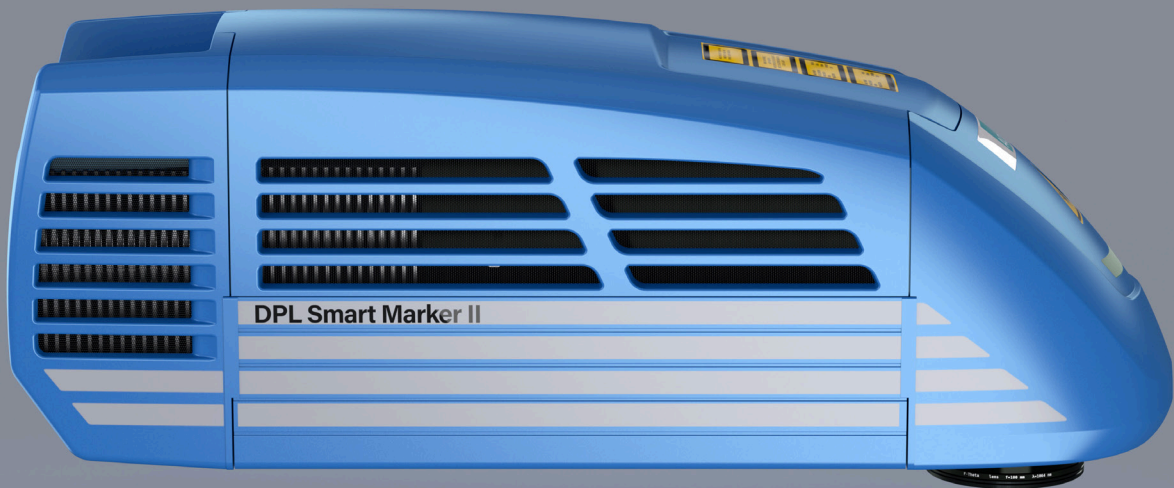
To ensure that they will always run smoothly, our products are subject to strict quality control at both the development and the production stage. This guarantees safe, reliable operation from machinery that will stand the test of time.

The functional, compact design of these laser systems is taking industrial laser marking to new places.

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DPL Smart Marker



Economy Diode

Entry-level, budget-friendly laser material marking

The **DPL Smart Marker** from the **Economy Diode** product series is a diode-pumped solid-state laser that operates in the wavelength range of 1064 nanometres. The infrared laser offers the user outstanding performance at an excellent price-performance ratio. It enables fast and high-contrast marking of various materials. It is the ideal entry-level system for laser marking, especially for small and medium-sized companies. It combines a compact design with a high level of efficiency. All components of the laser are combined in a single housing.

→ Features/properties

→ Optional features

→ Technical specifications

Features/properties

- 100% air-cooled
- Low power consumption
- Control with external PC

Standard interfaces

- Wide input range of 85–264 V AC
- Four digital inputs and outputs
- External safety circuit rated PLe

Safety first Operator safety

The laser safety device (SD) is the core safety module in our laser marking systems. It complies with the safety function requirements set out in DIN EN ISO 13849-1, performance level e.

Optional features

- Imaging systems for automatic object identification (AOI) and camera-assisted positioning of markings (CPM)
- Code readers
- Different lenses for different marking area sizes

The **DPL Smart Marker** is a laser protection class 4 solution. For operation in accordance with laser protection class 1, ACI offers the DPL Smart Marker in conjunction with various protective enclosures. This means that these laser systems can be used either as manual workstations or as integration components in an automated system.

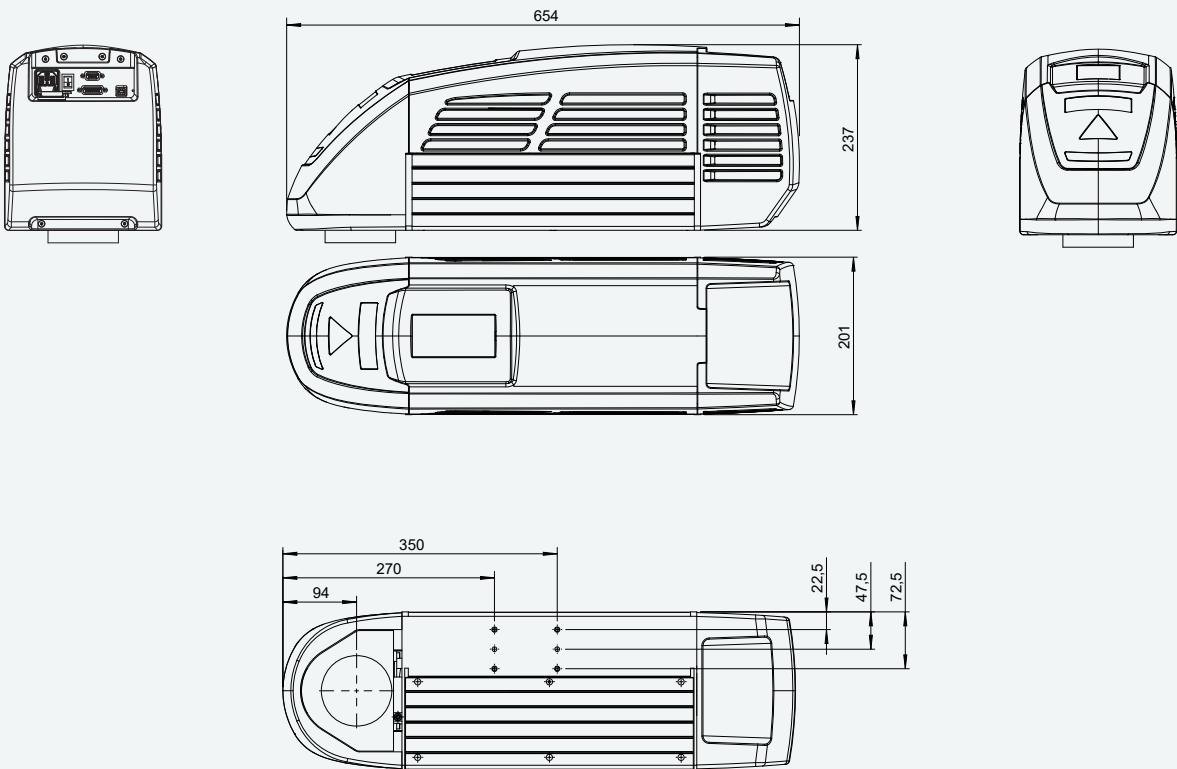
DPL Smart Marker

Dimensions/view

Laser head

Dimensions (L x W x H)

654x201x237 mm



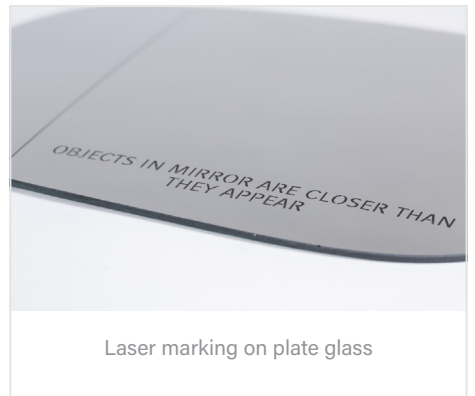
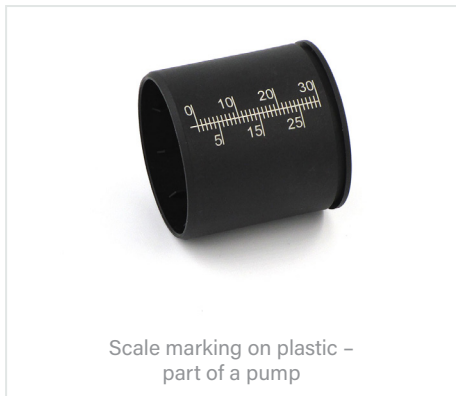
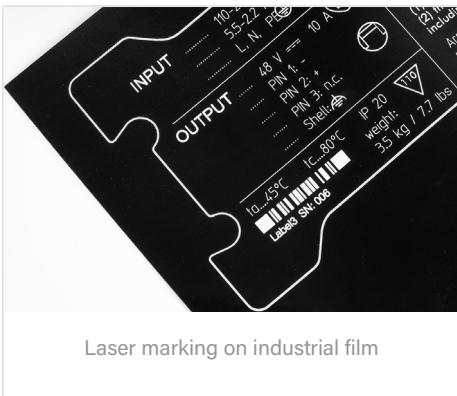
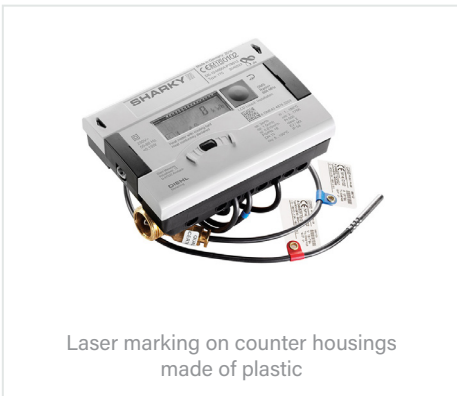
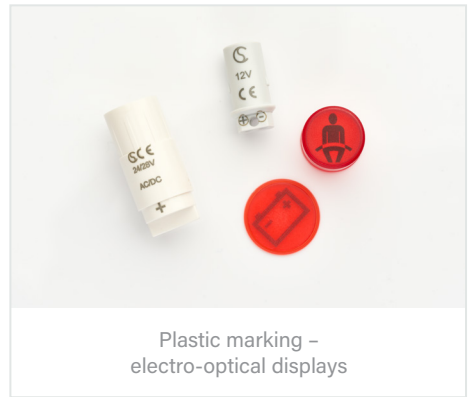
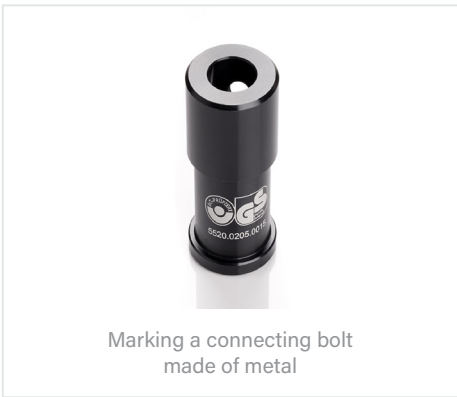
Technical specifications

DPL Smart Marker

Laser type	Nd:YAG		
Laser power	10 W		
Beam quality	$M^2 \leq 1.5$		
Wavelength	1064 nm		
Pulse widths	15–100 ns		
Pulse repetition rate	1–80 kHz		
Laser class	4, optionally 1		
Size of marking area	Optional: 60 x 60 mm	110 x 110 mm	180 x 180 mm
Power consumption	400 W		
Mains connection	85–264 V AC/6 A/50–60 Hz		
Weight	16 kg		
Dimensions (L×W×H)	654 × 201 × 237 mm		
Software	Magic Mark V3		
Interfaces	USB interface for communication between control PC and marking laser, interlock connection, SD-ready, laser-control interface with four digital inputs/outputs as an interface for production line, power input module		
Functional safety acc. to DIN EN ISO 13849-1	PLe		

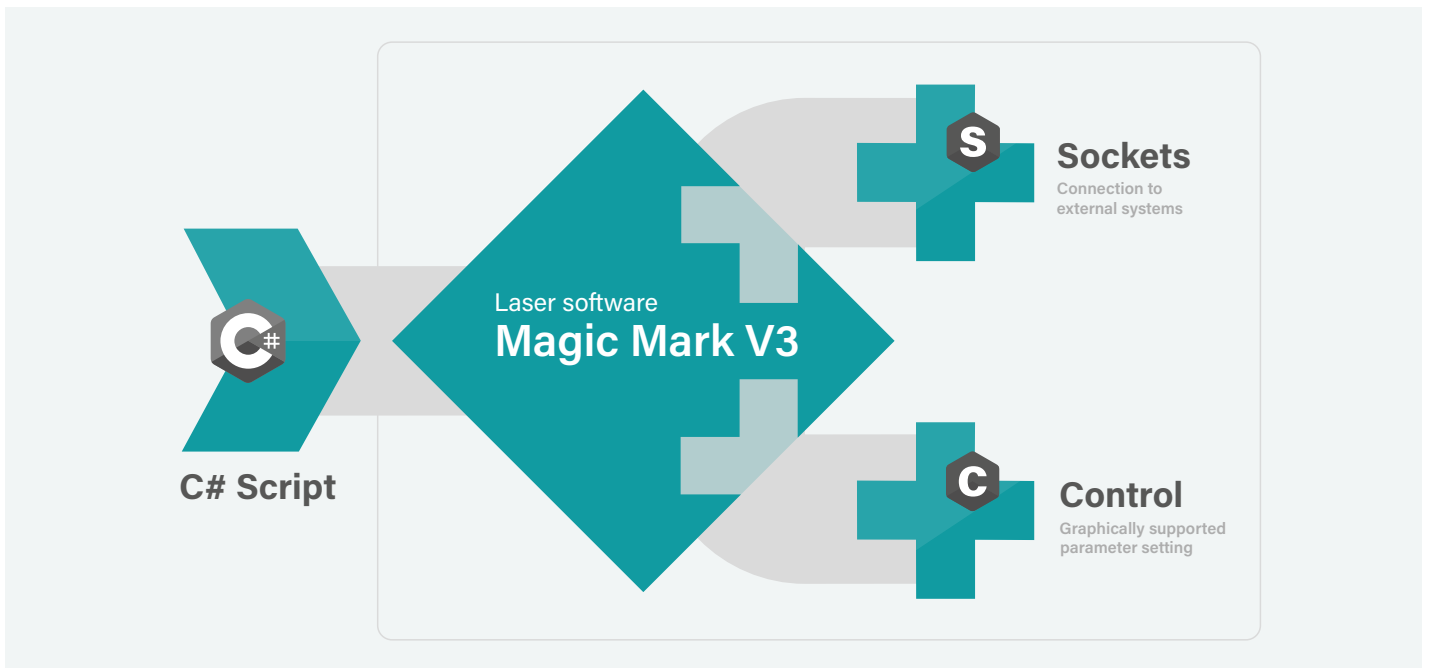
Applications

The **DPL Smart Marker** is a versatile marking laser. Its excellent beam quality enables fast, clean and high-contrast laser marking, especially on plastics. Metals, laser films and ceramics can also be marked very well with the powerful Nd:YAG laser.



Software-based control

The modern software architecture of the **Magic Mark V3** laser marking software enables targeted access to all available functions and allows users to control the laser and laser peripherals (workstation/axis of rotation, etc.).



Internal programming

VB.Net [Winwrap Basic]
integrated into Magic Mark V3

External programming

C#.Net [MS Visual Studio]
Access to class library

Benefits of Magic Mark V3

Software package
included in the scope of supply

Predefinable parameter sets

Easy addition of features using plugins





Partnership with ACI Laser Benefits for customers

The search for excellent partnerships is at the heart of everything we do. We offer our customers sustainable solutions based on all-encompassing advice, reliability and stability.

ACI Laser embodies:

- ✓ Development & Production that is *Made in Germany* with over 20 years of experience
- ✓ Complete solutions from a single source:
Laser systems, protective housings, software and accessories
- ✓ Customisable laser systems
- ✓ Functions can easily be added to the software using plugins


Made in Germany



We would be happy to advise you.

We guarantee you a tailor-made, all-in-one solution that meets the requirements of your application. Our experienced sales team provides you with comprehensive, in-depth advice. We look forward to hearing from you.

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www.aci-laser.de

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Company headquarters
Steinbrüchenstr. 14
99428 Grammetal, Germany
Tel. +49 (0) 3643 4152 0
Fax +49 (0) 3643 4152 77
kontakt@aci-laser.de

Chemnitz Sales Office
Leipziger Str. 60
09113 Chemnitz, Germany
Tel. +49 (0) 371 238701 30
Fax +49 (0) 371 238701 39
soc@aci-laser.de