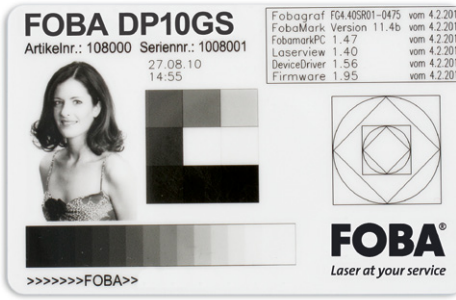
Laser Marking +
Engraving Solutions

FOBA®
Laser at your service

FOBA DP10GS



Highly efficient marking laser for brilliant grayscale marks

The end-pumped Vanadate grayscale marking laser DP10GS (Nd:YVO_4) is synonymous with first-class laser beam quality and excellent laser power. Preferred areas of application are in the ID and personalization sectors (personalization of highly sensitive cards, badges and passports; especially marking ID cards with grayscale images) as well as in the automotive industry (lacquer/coating removal to produce day/night designs). FOBA's DP10GS is also used for engraving metal parts and materials.

The air-cooled grayscale marking laser convinces with outstanding laser properties, fast markings and uncompromising marking quality. Its compact design allows smooth integration in both automation lines and FOBA machines.

Laser marked ID card with exemplary marking contents; Automotive day/night design element (with the kind permission of Preh GmbH)

Your product benefits

- **Excellent laser beam quality**
- **Best pulse to pulse stability**
- **Brilliant marking quality**
- **Low-maintenance and high efficiency due to long-life laser diodes**
- **Low operating costs due to efficient air-cooling**

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Technical Data

Marking features

Speed*	Up to 5,000 mm/s, up to 500 characters/s
Line width	Typically 55 µm

Laser

Type	Nd:YVO_4 (Vanadat), diode-pumped Wavelength 1,064 nm
Laser class	4 (according to DIN EN 60825-1:2008-05)
Laser power	CW: typically 10 W QS: typically 10 kW/pulse (30kHz)
Power stability	+/– 1 % (CW), +/– 1.5 % (QS)
Operating mode	Continuous wave operation (CW) Q-switched (QS, 10 kHz – 100 kHz)
Pulse energy	0.5 mJ (10 kHz)
Pulse width	30 ns (30 kHz)

Control

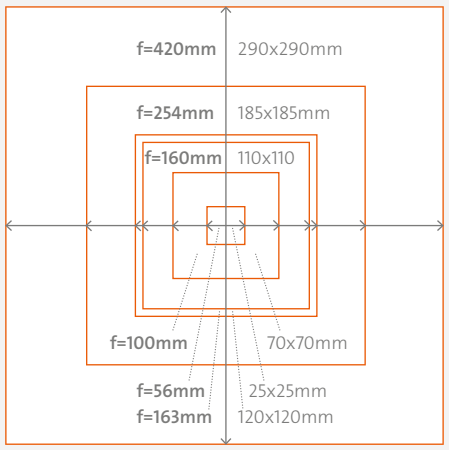
PC, OS	Modular CompactPCI-PC, Windows XP
Laser control	Fobagraf with import functions of plt/dwg/dxf/ai/jpg/tif/pcx/bmp, etc.
Interfaces	Serial, digital I/O, Ethernet, USB, Profibus

Supply

Electrical req.	L/N/PE 100 – 240 VAC, 50/60 Hz
Power consumption	Typ. 1.0 kW
IP rating	Marking unit IP20, control cabinet (with supply unit and laser control) IP43
Cooling	Air-cooled
Temperature	15 – 40 °C
Humidity	Rel. 90 % (max. 20 °C), 30 % (max. 40 °C) non-condensing
Weight	Marking unit approx. 15 kg**, Control cabinet approx. 45 kg

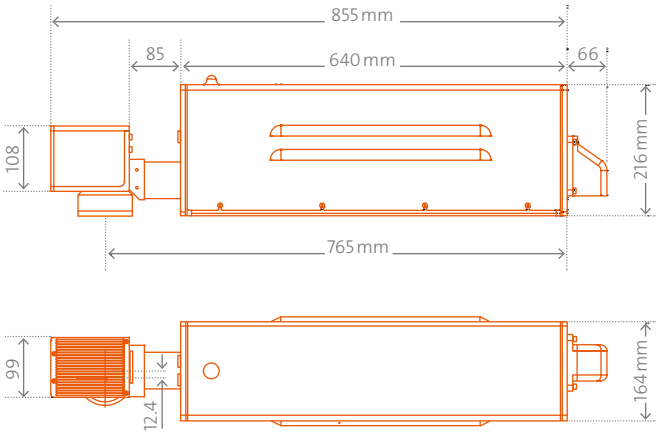
Options

Marking on the fly	For marking moving work pieces
19" racks	For integration
Changeable lenses	100 mm/163 mm/254 mm/420 mm
High-speed scan heads	

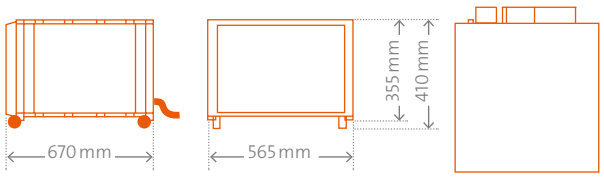


Marking fields

Scale 1:5 | Standard: 110x110 mm (f=160 mm) | Optional: 70x70 mm (f=100 mm), 120x120 mm (f=163 mm), 185x185 mm (f=254 mm), 290x290 mm (f=420 mm)



Marking unit (standard marking head and standard lens)



Control cabinet

* depends on the application ** without F-Theta lens

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