DATA SHEET

D - SERIES

COMPACT DIODE PUMPED LASER SYSTEM FOR

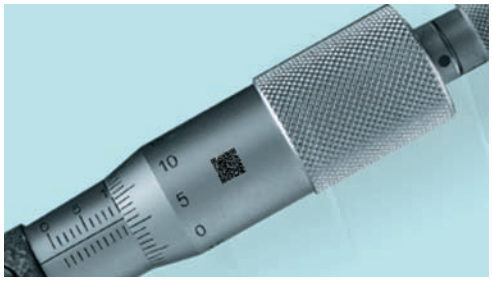
HIGH QUALITY MARKING

OF A RANGE OF METAL
AND PLASTIC SUBSTRATES

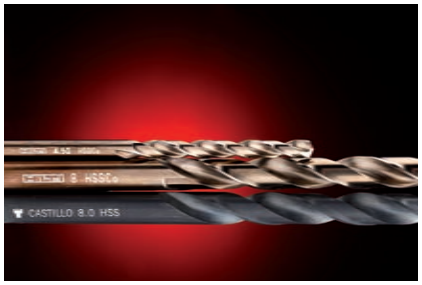
D-5000 by **MACSA**
Reliable. Smart. Easy.

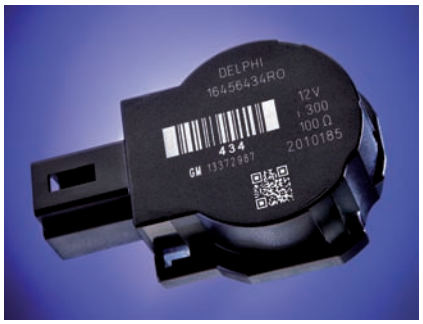
Macsa id
a code you can trust

A CODE YOU CAN TRUST



- ITS COMPACT DESIGN with adjustable marking head enables this laser to be installed on even the most complex production lines or in tight spaces where other lasers just won't fit.
- DYNAMIC "ON THE FLY" YAG marking is a reality with this system thanks to MACSA's sophisticated software and many years' experience of high speed applications.
- LOW COST OPERATION thanks to an innovative diode pumped YAG laser tube which requires no maintenance and no consumables.
- SUPERIOR QUALITY MARKING provides you with sharper bar codes and more precise logos and technical drawings.
- OPERATOR FRIENDLY using different user interfaces with special softwares to design and control all your marking requirements.
- RELIABLE & CLEAN laser technology results in less maintenance and less worries about "downtime".
- A WIDE RANGE OF MATERIALS including even highly reflective metal surfaces as well as plastics provide excellent results.





USER INTERFACE
FOR LASER SYSTEMS

1

2


3

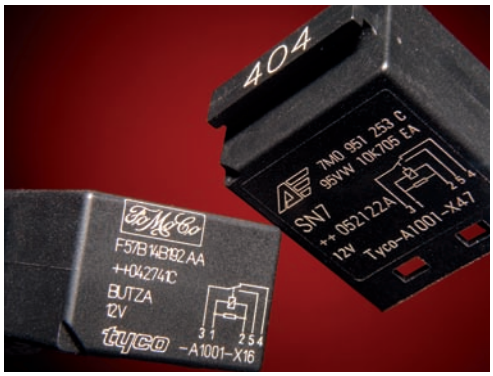
HAND-HELD TERMINAL (1)
Connection via RS-232 with ScanLINUX software included in laser marking system • creation and editing of text messages • able to create up to 4 lines of text • 4 types of MFF fonts • modify message XY position • time marking in multiple formats • clock adjustment • sequential numbers • password protection system.

TOUCH SCREEN (2)
Connection via RS-232 with ScanLINUX software included on marking laser system • Handheld Terminal emulator • allows control of the laser marking system from a remote touch screen.

PERSONAL COMPUTER (3)
Connection via TCP/IP (Marca Lite™) or Ethernet TCP/IP (Marca™) • compatible with all kinds of operating systems Windows NT/Me/2000/XP/7/8 • able to control the laser marking system from a remote PC • confers powerful graphics capabilities • able to create messages in all of the marking area.

SOFTWARE
FOR LASER SYSTEMS

4



5

SCANLINUX™ V 3.3 INTERNAL SOFTWARE CONTROLLING THE LASER MARKING SYSTEM (4)
ScanLINUX is the internal software running on LINUX managing the laser marking system • ScanLINUX allows the operation of the Handheld, Touchscreen, Marca Lite™ and Marc™ software • ScanLINUX includes Crystal Font™ dot matrix fonts • ScanLINUX software provides the option of changing the menu language of the Handheld terminal. It also allows the user to see the number of marks made during a printing session without going out of the printing menu.

MARCA LITE™ V 5.3 SOFTWARE FOR NETWORKING, STATIC AND DYNAMIC APPLICATIONS VIA TCP/IP (5)
Easily installed • Software compatible with Windows NT/2000/ XP/7/8 for networking, static and dynamic supplied with protection key • basic graphic interface able to build in text and graphic in all the marking area • create logos • capable of downloading MFF fonts and DXF vector files • alarm control.

MARCA™ V 5.3 SOFTWARE FOR HIGH RESOLUTION & STATIC/DYNAMIC APPLICATIONS VIA ETHERNET TCP/IP (6)
Easily installed • Software compatible with Windows NT/2000/XP/7/8 for high resolution & Marca™ software supplied with protection key • controls laser systems via Ethernet static/dynamic applications TCP/IP • powerful WYSWYG design editor in all the marking area • zoom • bar codes • 2D barcodes • MFF font editor • character filling • capable of downloading BMP, JPG, GIF, TIF, PCX and other graphic files • capable of downloading DXF vector files with multiple import options • ODBC (database) features • true type text fonts • messages activated by hourly, daily or monthly changes • networking capabilities of several systems via Ethernet TCP/IP • Unicode Enable. Allows UHS.

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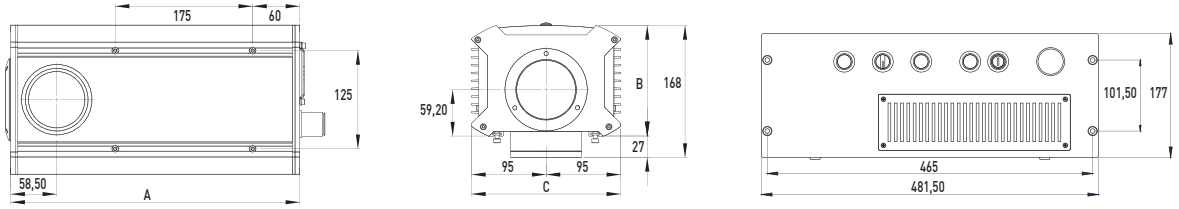
D-5000



SYSTEM TYPE		D-5003 GREEN B1	D-5006 GREEN B1	D-5010 B1	D-5020 B1
POWER		3W GREEN	6W GREEN	10W	20W
WAVELENGTH		532µm		1.064µm	
MAINS SUPPLY		125V / 230V 50/60 Hz (1 Phase + N) Typ: 250VA Max: 300VA	125V / 230V 50/60 Hz (1 Phase + N) Typ: 350VA Max: 400VA	125V / 230V 50/60 Hz (1 Phase + N) Typ: 250VA Max: 300VA	125V / 230V 50/60 Hz (1 Phase + N) Typ: 350VA Max: 400VA
DIMENSIONS	Head (A x B x C)	368x141x190 mm		728x141x190 mm	
	Rack	482x177x454 mm (19" x 4u x 454 mm)			
WEIGHT		N.W.: 28kg G.W.: 33kg			
SYSTEM		Resonator of the laser source, DACs board, drivers of the scanners and galvanometric scanners built into the laser and marking head. Control and power electronics, CPU, power supplies and laser source pumping unit built into the control rack.			

OPTICS	Working distance (mm)	Focal length (mm)	Marking area (mmxmm)	D-5003 GREEN B1		D-5006 GREEN B1		D-5010 B1		D-5020 B1	
				Beam diameter (µm)	Power density (kW/cm²)	Beam diameter (µm)	Power density (kW/cm²)	Beam diameter (µm)	Power density (kW/cm²)	Beam diameter (µm)	Power density (kW/cm²)
	80	90	58x58	18 - O	11.8 - O	24 - O	13.3 - O	-	-	-	-
	85	95	60x60	-	-	-	-	<34 – O	11.3 – O	<34 – O	22.5 – O
	138	148	77x77	30 - S	4.2 - S	40 - S	4.8 - S	-	-	-	-
	190	200	100x100	-	-	-	-	<67 – S	2.8 – S	<67 – S	5.6 – S
	230	240	150x150	-	-	-	-	<101 – O	1.3 – O	<101 – O	2.5 – O
	310	320	200x200	-	-	-	-	<126 - O	0.8 - O	<126 - O	1.6 - O
	µm: microns S: Standard O: Optional Standard configuration of Marking at 90º (easily convertible marking at 0º using an external elbow).										

SOFTWARE	▪ ScanLinux V5.1.7 and higher for D-5000 B1 laser systems. ▪ Software Marca V5.6.9.a and higher for D-5000 B1 laser systems. ▪ Internal bar code.
USER INTERFACE	▪ Hand held terminal. ▪ Touch screen. ▪ PC.
CONTROL	▪ Hand held terminal with ScanLinux software. ▪ Touch screen with ScanLinux software. ▪ Full graphics interface: it includes Marca™ software, Hasp key and Ethernet cable (TCP/IP). ▪ Software Marca Lite: it includes Marca™ software, Hasp key and Ethernet cable (TCP/IP).
LASER SOURCE	▪ End pumped Nd:YAG resonator by an optical fibre. ▪ Beam pointer (optional red diode).
ACCESSORIES / OPTIONS	Touch screen terminal – Hand held terminal – Beam pointer – Shaft encoder kit – Photocell kit – Photocell – Alarm kit – Fume extractor – Floor stand – Mounting bracket U-ARM – Marking papers – Protection glasses.
ENVIROMEN. CONDITIONS	▪ +15º C (59º F) to 40º C (104º F) external temperature. ▪ Humidity <95% non-condensating. ▪ No vibrations.

Document reference 140313-520210-V2 Specifications subject to change

D-5000 by MACSA

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