

## K - SERIES

A VERSATILE RANGE OF CO<sub>2</sub> LASER  
PRODUCTS FOR HIGH QUALITY

# CODING AND MARKING AT A VERY LOW COST



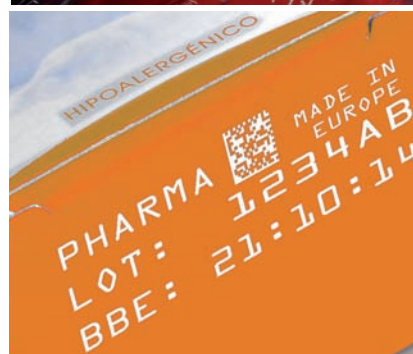
**K-1000** by **MACSA**  
Fast. Powerful. Reliable.

**Macsa id**<sup>®</sup>  
a code you can trust

# A CODE YOU CAN TRUST

- **THE INCREDIBLY COMPACT DESIGN** along with an adjustable marking head ensures that you can install this system on even the most complicated production lines. The system can even be integrated with other manufacturer's equipment.
- **THIS EASY TO USE SYSTEM** works through a combination of extremely fast mirror tracking systems and the most modern software and hardware you can be assured of reliable high speed marking.
- **THE LATEST IN LASER TECHNOLOGY** along with the fact that you don't need expensive replacements results in a system that requires little maintenance, minimal operational costs and no headaches.
- **THE MARKING PROCESS** is unimpeded because you don't need an expensive and space consuming PC on the production line. Furthermore in Macsa lasers, with MACSA's software, you can link several K-1000 laser systems together for even greater control and increased production or to increase the graphic features of the K-1000 laser connecting a PC through the full graphic interface kit.

- **ALL OF THESE FEATURES** ensures that everyone of your products is marked with the same high degree of quality and permanence guaranteeing accurate identification for the lifetime of your products.
- **A DIVERSE RANGE OF MATERIALS** can be marked utilizing the K-1000 system including labels, cardboard, PET, glass, coating and wood.





# USER INTERFACE

## FOR LASER SYSTEMS

### 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.



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# SOFTWARE

## FOR LASER SYSTEMS

### 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 Marca™ 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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## K-1000 LASERS ARE FAST

They are high powered and equipped with ultra high speed galvos enabling them to match the speeds of the fastest production lines.



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## K-1000 LASERS ARE POWERFUL

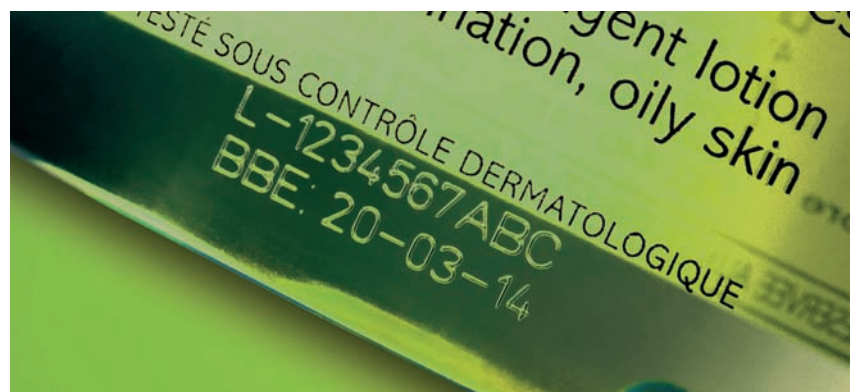
They can mark large complex graphics and deliver quality laser marks even on difficult substrates and when time is limited.



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## K-1000 LASERS ARE RELIABLE

The KIP variant has a remote IP65 head enabling it to operate reliably at the level of the production line in the damp conditions of a hose down environment.





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# CONSISTENT LONG TERM HIGH QUALITY PRINTING

There are no printheads which need cleaning or which degrade over time and need replacing.

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# DELIVER A PERMANENT CODE

Ink based alternatives may be scratched or rubbed off the substrate.



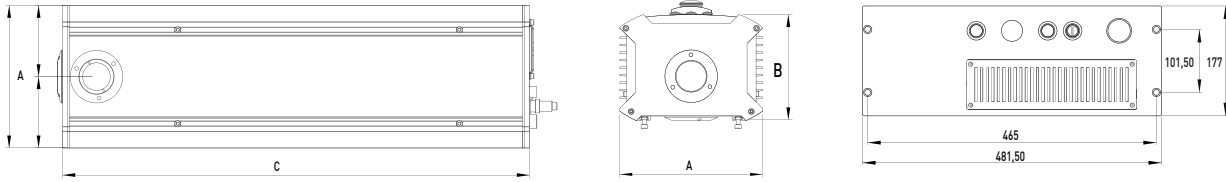
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# BETTER PRINTING IN DUSTY ENVIRONMENTS

Laser coders are not disadvantaged by dust whereas a thermal transfer printhead will need a regular cleaning and an inkjet printhead will need regular flushing to prevent blockages.



# K-1000 PLUS UHS

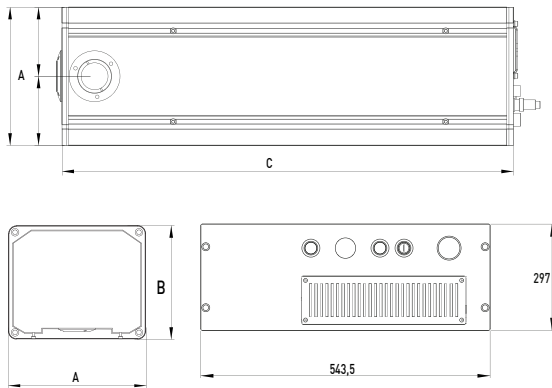


SYSTEM TYPE		K-1010 PLUS UHS	K-1030 PLUS UHS	K-1060 PLUS UHS	K-1080 PLUS UHS			
POWER		10W	30W	60W	80W			
WAVELENGTH		9.3µm / 10.2µm / 10.6µm						
MAINS SUPPLY		125V / 230V 50/60 Hz [1 Fase + N] 330VA	125V / 230V 50/60 Hz [1 Fase + N] 660VA	125V / 230V 50/60 Hz [1 Fase + N] 1600VA	125V / 230V 50/60 Hz [1 Fase + N] 1900VA			
DIMENSIONS	Split Head (optional)	108x106,5x114 mm						
	Tube (A x B x C)	190x141x621 mm	235x193x656 mm	235x193x774 mm				
	Rack	-	-	482x177x454 mm (19"x4ux454 mm)				
WEIGHT		Net: 19kg Gross: 24kg	Net: 32kg Gross: 40kg	Net: 71kg Gross: 86kg				
SYSTEM		Laser source, control and power electronics, CPU and scanners built into the laser tube.		Laser source, scanners, control electronics and CPU built into the laser tube. Power electronics built into the control rack.				
OPTICS	Working distance (mm)	Focal length (mm)	Marking area (mm x mm)	Beam diameter MODELS PLUS UHS (µm)				
	85	95	60x60	<256µm -0				
	115	125	75x75	<337µm -0				
	150	160	100x100	<432µm -S				
	190	200	100x100	<540µm -0				
	230	240	150x150	<648µm -0				
	310	320	200x200	<864µm -0				
400	410	250x250	<1107µm -0					
µm: microns S: Standard O: Optional								
SOFTWARE		<ul style="list-style-type: none"> <li>ScanLinux V5.2.7 and higher.</li> <li>Software Marca V5.6.9.a and higher.</li> <li>Internal bar code.</li> <li>Software Marca Lite.</li> </ul>						
USER INTERFACE		<ul style="list-style-type: none"> <li>Hand held terminal / Touch screen / PC</li> </ul>						
CONTROL BY		<ul style="list-style-type: none"> <li>Hand held terminal with ScanLinux software.</li> <li>Touch screen with ScanLinux software.</li> <li>Full graphics interface: it includes Marca™ software, Hasp key and Ethernet cable (TCP/IP).</li> <li>Software Marca Lite: it includes Marca™ software, Hasp key and Ethernet cable (TCP/IP).</li> </ul>						
MARKING HEAD	KS-1000 - 9,3 µm		KS2-1000 - 10,2 µm		K-1000 - 10,6 µm			
	CO2 sealed laser tube R.F. technology Wavelength: 9,3 microns		CO2 sealed laser tube R.F. technology Wavelength: 10,2 microns		CO2 sealed laser tube R.F. technology Wavelength: 10,6 microns			
ACCESSORIES		Beam pointer- Shaft encoder kit - Mounting support - Photocell kit						
ENVIROMENTAL CONDITIONS		10°C (50°F) to 40°C (104 °F) external temperature Humidity <95% non-condensation No vibrations						
K-1010 PLUS UHS (10.6 µm) SPEED	PAPER LABEL		Max. Speed line (m/min)		Cadence (mm)		Scanners speed (mm/s)	
	1 Line / 8 Charact.		140	<i>156</i>	122	<i>120</i>	1500	<i>200</i>
	2 Line / 8 Charact.		80	<i>80</i>	122	<i>122</i>	1500	<i>200</i>
	3 Line / 8 Charact.		53	<i>54</i>	118	<i>120</i>	1500	<i>200</i>
	4 Line / 8 Charact.		40	<i>40</i>	118	<i>118</i>	1500	<i>200</i>
	PET		Max. Speed line (m/min)		Cadence (mm)		Scanners speed (mm/s)	
	1 Line / 8 Charact.		116	<i>106</i>	127	<i>125</i>	1000	<i>400</i>
	2 Line / 8 Charact.		58	<i>51</i>	118	<i>116</i>	1000	<i>400</i>
	3 Line / 8 Charact.		38	<i>35</i>	116	<i>117</i>	1000	<i>400</i>
	4 Line / 8 Charact.		29	<i>25</i>	116	<i>110</i>	1000	<i>400</i>
	PAINTED ALUMINIUM		Max. Speed line (m/min)		Cadence (mm)		Scanners speed (mm/s)	
	1 Line / 8 Charact.		87	<i>78</i>	117	<i>119</i>	700	<i>600</i>
	2 Line / 8 Charact.		44	<i>40</i>	120	<i>118</i>	700	<i>600</i>
	3 Line / 8 Charact.		28	<i>26</i>	117	<i>120</i>	700	<i>600</i>
	4 Line / 8 Charact.		20	<i>19</i>	109	<i>113</i>	700	<i>600</i>

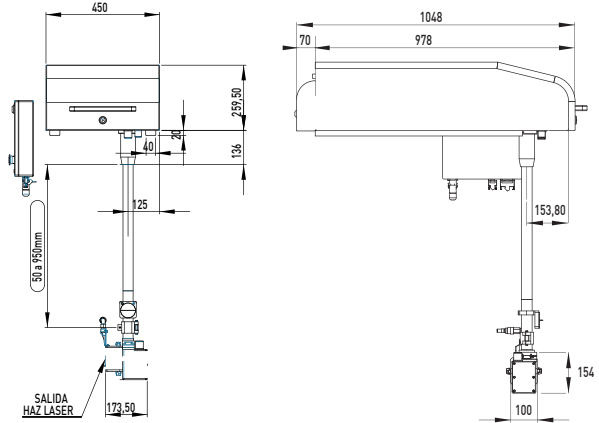
Normal → Newpal Font  
*Italic* → Crystal Font

# KIP-1000 PLUS IP65

KIP-1010/30

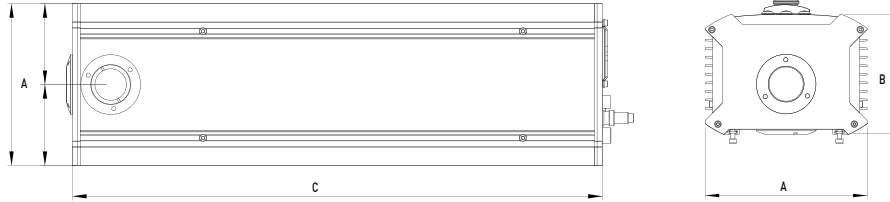


KIP-1080



SYSTEM TYPE		KIP-1010 SP net IP65	KIP-1010 PLUS IP65	KIP-1010 PLUS UHS IP65	KIP-1030 SP net IP65	KIP-1030 PLUS IP65	KIP-1030 PLUS UHS IP65	KIP-1080 PLUS UHS IP65
POWER		10W			30W			80W
WAVELENGTH		9.3µm / 10.2 µm / 10.6 µm						
MAINS SUPPLY		125V / 230V 50/60 Hz (1 Fase + N) 300VA			125V / 230V 50/60 Hz (1 Fase + N) 600VA			125V / 23 V 50/60 Hz (1 Fase + N) 1900VA
DIMENSIONS	Tube [A x B x C]	216.5x164 x621.5 mm			260x193x656 mm			-
	Rack	-			-			450x279.5x1048 mm
	Split Head	-			-			154x100x174 mm
WEIGHT		Net: 14kg Gross: 18kg			Net: 26kg Gross: 32kg			Net: 80 kg Gross: 95kg
SYSTEM		Laser source, control and power electronics, CPU and scanners built into the laser tube.						Laser source, control and power electronics and CPU built into the rack. Scanners built into the external head. External control panel.
		without beam expander	with beam expander	without beam expander	with beam expander	without beam expander	with beam expander	
OPTICS	Working distance (mm)	Focal length (mm)	Marking area (mmxmm)	Beam diameter MODELS SP net (µm)	Beam diameter MODELS PLUS (µm)	Beam diameter MODELS PLUS UHS (µm)		
	85	95	60x60	<385µm -S	<192µm -O	<256µm -O		
	115	125	75x75	<506µm -O	<253µm -O	<337µm -S		
	190	200	100x100	<810µm -O	<405µm -S	<432µm -O		
	230	240	150x150	<972µm -O	<486µm -O	<540µm -O		
	310	320	200x200	<1296µm -O	<648µm -O	<648µm -O		
	400	410	250x250	<1660µm -O	<830µm -O	<864µm -O		
µm: microns S: Standard O: Optional								
SOFTWARE		<ul style="list-style-type: none"> <li>ScanLinux V5.2.7 and higher.</li> <li>Software Marca V5.6.9.a and higher.</li> <li>Internal bar code.</li> <li>Software Marca Lite.</li> </ul>						
USER INTERFACE		Hand held terminal / Touch screen / PC						
CONTROL BY		<ul style="list-style-type: none"> <li>Hand held terminal with ScanLinux software.</li> <li>Touch screen with ScanLinux software.</li> <li>Full graphics interface: includes Marca software™, dongle and Ethernet cable (TCP / IP).</li> <li>Marca Lite software: includes Marca™ software, dongle and Ethernet cable (TCP / IP)</li> </ul>						
ACCESSORIES		Beam pointer- Shaft encoder kit - Mounting support - Photocell kit						
ENVIROMENTAL CONDITIONS		10°C (50°F) to 40°C (104 °F) external temperature Humidity <95% non-condensation No vibrations						

**K-1000**



<b>SYSTEM TYPE</b>		<b>K-1010 SP net</b>	<b>K-1010 PLUS</b>	<b>K-1030 SP net</b>	<b>K-1030 PLUS</b>
<b>POWER</b>		10W		30W	
<b>WAVELENGTH</b>		9.3µm /10.2µm /10.6µm			
<b>MAINS SUPPLY</b>		125V / 230V 50/60 Hz (1 Fase + N) 330VA		125V / 230V 50/60 Hz (1 Fase + N) 660VA	
<b>DIMENSIONS</b>	Split Head (optional)	108x106,5x114 mm			
	Tube (A x B x C)	190x141x621 mm		235x193x656 mm	
<b>WEIGHT</b>		Net: 19kg Gross: 24kg		Net: 32kg Gross: 40kg	
<b>SYSTEM</b>		Laser source, control and power electronics, CPU and scanners built into the laser tube.			

<b>OPTICS</b>	Working distance (mm)	Focal length (mm)	Marking area (mmxmm)	Beam diameter MODELS SP (µm)	Beam diameter MODELS PLUS (µm)
		85	95	60x60	<385µm -S
	115	125	75x75	<506µm -0	<253µm -0
	150	160	100x100	<810µm -0	<405µm -S
	190	200	100x100	<972µm -0	<486µm -0
	230	240	150x150	<1296µm -0	<648µm -0
	310	320	200x200	<1660µm -0	<830µm -0
	400	410	250x250	<385µm -S	<192µm -0

µm: microns S: Standard O: Optional

<b>SOFTWARE</b>	<ul style="list-style-type: none"> <li>ScanLinux V5.2.7 and higher.</li> <li>Software Marca V5.6.9.a and higher.</li> <li>Internal bar code.</li> <li>Software Marca Lite.</li> </ul>
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<b>USER INTERFACE</b>	<ul style="list-style-type: none"> <li>Hand held terminal / Touch screen / PC</li> </ul>
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<b>CONTROL BY</b>	<ul style="list-style-type: none"> <li>Hand held terminal with ScanLinux software.</li> <li>Touch screen with ScanLinux software.</li> <li>Full graphics interface: it includes Marca™ software, Hasp key and Ethernet cable (TCP/IP).</li> <li>Software Marca Lite: it includes Marca™ software, Hasp key and Ethernet cable (TCP/IP).</li> </ul>
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<b>MARKING HEAD</b>	KS-1000 - 9,3 µm	KS2-1000 - 10,2 µm	KS-1000 - 10,6 µm
	CO <sub>2</sub> sealed laser tube R.F. technology Wavelength: 9,3 microns	CO <sub>2</sub> sealed laser tube R.F. technology Wavelength: 10,2 microns	CO <sub>2</sub> sealed laser tube R.F. technology Wavelength: 10,6 microns

<b>ACCESSORIES</b>	Beam pointer- Shaft encoder kit - Mounting support - Photocell kit
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<b>ENVIROMENTAL CONDITIONS</b>	10°C (50°F) to 40°C (104 °F) external temperature Humidity <95% non-condensation No vibrations
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	PAPER LABEL	Max. Speed line (m/min)		Cadence (mm)		Scanners speed (mm/s)	
	K-1010 PLUS SHS (10.6 µm) SPEED	1 Line / 8 Charact.	575	290	245000	124000	20000
2 Line / 8 Charact.		310	140	130000	60000	20000	65
3 Line / 8 Charact.		190	95	80000	40700	20000	65
4 Line / 8 Charact.		145	70	60000	30000	20000	65
	PET	Max. Speed line(m/min)		Cadence (mm)		Scanners speed (mm/s)	
	Lens:100x100 Resolution:10 Inertia K: 30 Max. Inertia: 40  Font size: 3mm	1 Line / 8 Charact.	425	265	182000	113500	10000
2 Line / 8 Charact.		215	130	92100	55700	10000	75
3 Line / 8 Charact.		145	85	60000	36400	10000	75
4 Line / 8 Charact.		105	65	45000	27800	10000	75
	GLASS	Max. Speed line(m/min)		Cadence (mm)		Scanners speed (mm/s)	
	Cristal Font type: Matrix:7x5 Speed:60000 Microstep:40 Delay: 20	1 Line / 8 Charact.	195	175	83500	75000	2000
2 Line / 8 Charact.		105	85	45000	36400	2000	120
3 Line / 8 Charact.		65	55	27800	23500	2000	120
4 Line / 8 Charact.		50	45	21400	19200	2000	120

Normal → Newpat Font  
Italic → Crystal Font

# K-1000 by MACSA

Fast. Powerful. Reliable.



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