

## Sistem de marcare lase nanoVIS II

### Clasa de siguranta 4



#### Prezentarea generala a sistemului

Laser pentru integrare cu un sistem inovator de auto-reglare a frecventei. **nanoVIS II** utilizeaza o noua tehnologie laser revolutionara cu monitorizare automata a frecventei. Sistemul **OEM nanoVIS II** este o unitate laser extrem de inovatoare, foarte compacta si usoara, stabila si fiabila, care se potriveste perfect pentru integrarea aplicatiilor de linie si de banc. Ca parte a noii familii de produse **a-Wave™**, tehnologia laser exclusiva a Automator permite laserului nanoVIS II sa fie foarte rentabil, cu rezultate comparabile cu sistemele ce au costuri mult mai mari pentru recoacerea suprafetelor intarite sau marcarea pe materiale plastice. nanoVIS II obtine rezultate excelente, pe multe materiale diferite: materiale plastice, metale, anodizate, ceramice, policarbonate, vopsite si multe altele.

Pe langa faptul ca are printre cele mai mici costuri din lume pentru un laser cu galvanometru, **nanoVIS II** este de asemenea si cel mai mic laser din lume. Toate componentele sale sunt integrate in compactul **nanoVIS II** intr-o lungime de doar 327mm (12,9") si o greutate de 7,7Kg (16,9lb): de la sursa Pto la placile electronice, pana la capul de scanare cu obiectiv plat. Proiectat si construit in conformitate cu "Filosofia Eco" **nanoVIS II** respecta legislatia UE privind mediul si economiile de energie. O politica pe care Automator a adoptat-o atat in alegerea componentelor, cat si in fazele interne de productie. Intr-un cuvint: **nanoVIS II** "respecta" mediul.

#### Configuratia sistemului

Conceptul principal al proiectului **nanoVIS II** este ingineria modulara pentru a combina cele mai bune componente in cel mai mic sistem laser cu piese si optiuni interschimbabile, proiectate si fabricate de Automator.

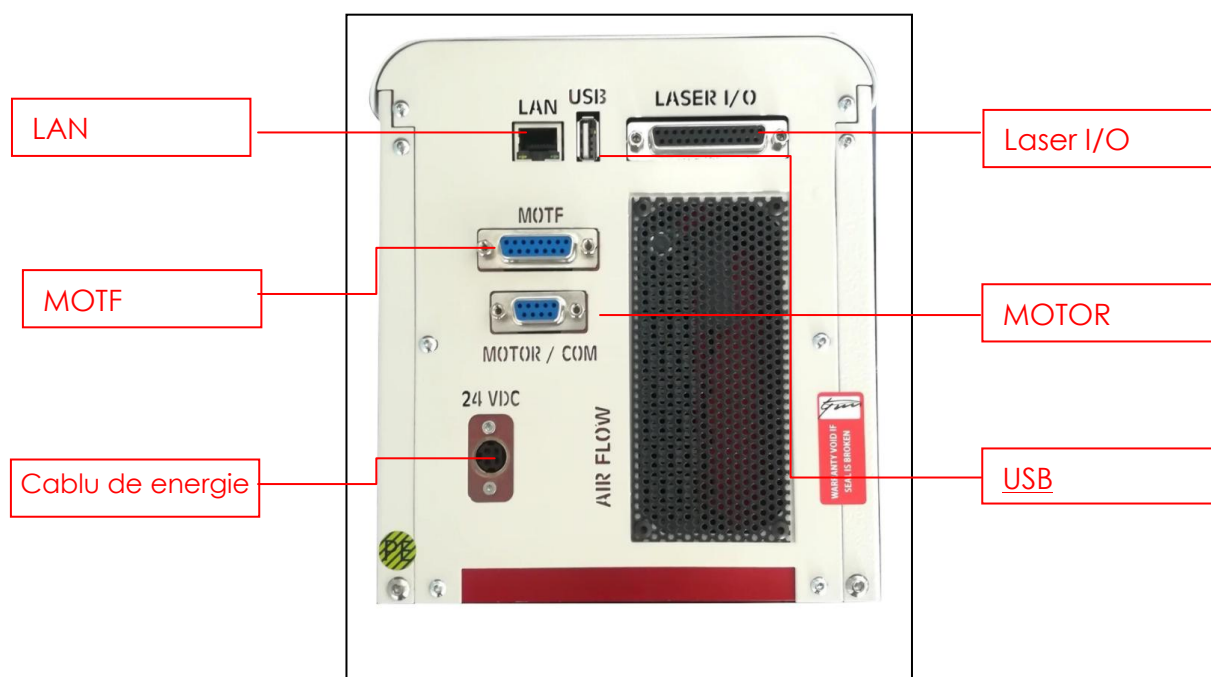


**nanoVisII - Date tehnice**

<b>Dimensiuni generale: LxWxH (mm - inch):</b>	327,7x165x202,6 – 12,9x6,49x7,97
<b>Greutate (kg - lb):</b>	7,7 – 16,9
<b>Tipul laserului:</b>	YAG – aWave
<b>Gama de putere (W):</b>	Variabila
<b>Lungimea de unda (nm):</b>	1060
<b>Polarizare:</b>	Lineara (100:1)
<b>Obiectiv standard(mm-zona marcare)</b>	F160 - suprafata de marcare 110x110
<b>Izolator optic:</b>	Nu
<b>Alimentare externa (VDC):</b>	24
<b>Calitatea fasciculului (M<sup>2</sup>):</b>	TEM00
<b>Durata pulsului (ns) @20kHz:</b>	<130
<b>Tunabilitatea puterii de iesire (%):</b>	10-100
<b>Consumul de energie (20°C) (W):</b>	160
<b>Temperatura de operare (°C - °F):</b>	+15 - +35 - 59 – 95
<b>Temperatura de depozitare (°C - °F):</b>	0 - +60 - 32 - 140
<b>Umiditatea (%):</b>	10 – 85 fara condens
<b>Sistem de racire:</b>	Racire cu aer
<b>Directiva 2011/65/EC - Restrictionarea substantelor periculoase (RoHS):</b>	Respecta
<b>Clasa de siguranta</b>	4
<b>MTBF (h):</b>	Estimat peste 120.000

Impamantarea, prin conectarea la punctul numit "PE" - pe spatele sursei laser - este responsabilitatea clientului

**Conectivitate si aspect al sistemului**





LSH	RFDOFDPSSODWRDGHDFDH	/LPHDIRFDOLDLL
/SD6WDGDG F160	110x110 mm • 4,33"x4,33"	198 mm • 7,8"
LXSD F100	60x60 mm • 2,36"x2.36"	120 mm • 4,7"
LXSD F254	155x155 mm • 7"x7"	302 mm • 11,9"
LXSD F330	220x220 mm • 8,66x8,66"	390 mm • 15,3"
LXSD F420	300x300 mm • 12,59"x12,59"	520 mm • 20,5"

&DSGHPDUFDUHGHEFODQVDRUJ  
 &DSXOGHPDUFDUH nanoVISLQWHJUDDREDUFDVDDREW XUDWRUXOXLDHFVWDFEWDWRUJ  
 HOHEWURPHFDQLFDVJXUDRIXQEWLRQDUHDREW XUDWRUXOXLLQPLQVHFXQGHQWLPSPXOPDUFDUJ  
 REWXUDWRUXOXUDPDQHLQWURSLWLHGHWFKLVMDLDSRLMHLQFKLGHEDQGRSHUDWLXQHDHVMWHJ  
 ILQDOLDWDDVJXUDQGRFRERQGLWLHMLJXUDGHEORFDUHOLVFDUHDREW XUDWRUXOXLSRDWHHJ  
 ERQWURODWDGCHKDUGZDUHXIOMRIWZDUHXIOODVMXGGMHPQDOHOHJ28QMHQRUGHJ  
 VJXUDQWDEHUWLLFDWLQWHJUDWGHWHFEWHDDSRWLWLDODPHLREW XUDWRUXOXLLQFDUFDVDRIHUJ  
 LQIRUPDWLLEFULWLFHEDUHERQILUPDMDUHDHDSRLWLHLREW XUDWRUXOXLJ

**nanoVIS II – Software -ul EuGenius**

SoftwareO(HLM has been projected and developed by Automator highly specialized team, consolidating the marked requests in the long term marking knowhow of more than 70 years in marking.

Versatile in the applications and friendly to use, even by operators without highly technical specific training, such as CAD knowledge.

- Multilanguage menu
- Management barcode "Datamatrix", 2D code, QR code, PDF Queues
- Easy import of vector drawings, DXF
- Easy import of raster graphics, BMP, JPEG, .JPG, GIF
- Complete set of laser parameters such as speed or power laser
- Texts, Text arcs, text on curved lines,
- Lines, rectangles, polygons, circles and arcs
- TTF Font ® (windows property)
- Graphic preview
- Texts with date, serial numbers, shift codes and year/month/day
- Multi fillings or single profile markings
- Templates (object to be marked as background)
- Proportion scale, move, rotate, group creation of each object on the screen
- Quick Test for an easy identification of the best laser parameters
- Automation & object tiling
- External axis commanded by software
- Shutter control
- Easy diagnosis of troubleshootings



**nanoVIS II – Pin out – I/O scheme**

Pin:	YAG-GREEN-ON/OFF	FYBRA	CO2
1	Com. IN	Com. IN	Com. IN
2	Enable Laser	nc	nc
3	Start Marking	Start Marking	Start Marking
4	JOB loading	JOB loading	JOB loading
5	USER 1	USER 1	USER 1
6	USER 2	USER 2	USER 2
7	USER 3	USER 3	USER 3
8	USER 4 (SHUTTER)	USER 4 (SHUTTER)	USER 4 (SHUTTER)
9	nc	nc	nc
10	nc	nc	nc
11	nc	nc	nc
12	nc	nc	nc
13	X1 , X2 (Com. Security)	X1 , X2 (Com. Security)	X1 , X2 (Com. Security)
14	Com. OUT	Com. OUT	Com. OUT
15	System ON	System ON	System ON
16	System READY	System READY	System READY
17	Laser ON (armed)	Laser ON (armed)	nc
18	Laser OK (System OK)	nc	nc
19	Ongoing marking	Ongoing marking	Ongoing marking
20	USER OUT 1	USER OUT 1	USER OUT 1
21	USER OUT 2	USER OUT 2	USER OUT 2
22	nc	nc	nc
23	nc	nc	nc
24	Y1 (Security Channel 1)	Y1 (Security Channel 1)	Y1 (Security Channel 1)
25	Y2 (Security Channel 2)	Y2 (Security Channel 2)	Y2 (Security Channel 2)

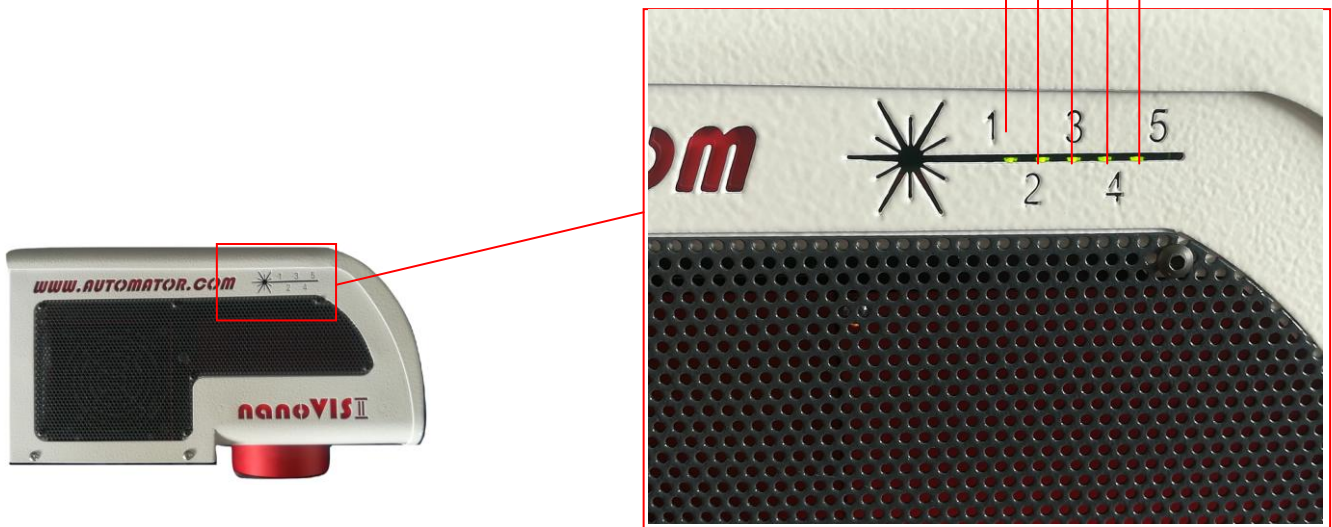
Pin:	I/O 9 Female Poles (communications/motors)
1	(reserved)
2	RX2
3	TX2
4	(reserved)
5	0 Vdc
6	(reserved)
7	A
8	B
9	+24 Vdc

Pin:	I/O 15 Female Poles (encoder)		
1	+24 Vdc	8	nc
2	0 Vdc	9	+5Vdc
3	A	10	/A
4	B	11	/B
5	Z	12	/Z
6	nc	13	nc
7	nc	14/15	nc

**nanoVIS II - Diagnosis**

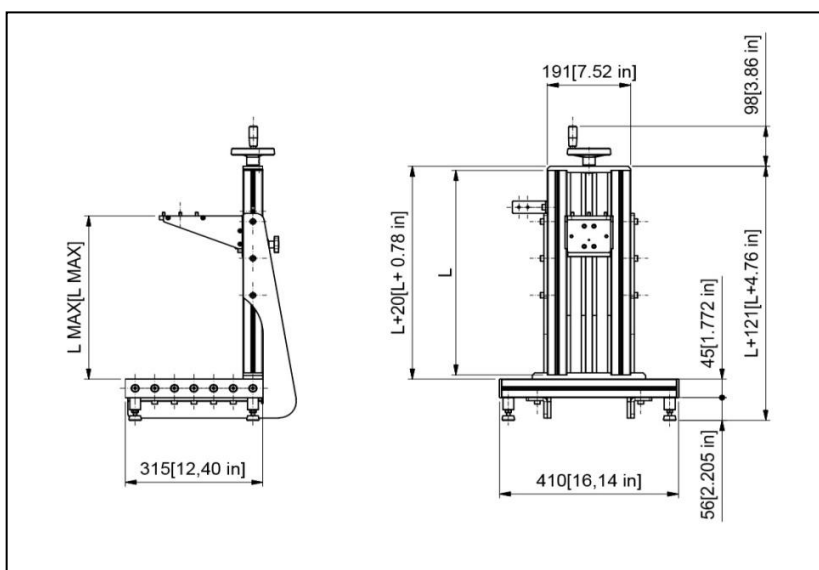
Human eye visible the diagnostic on the laser supply, with easy indicators

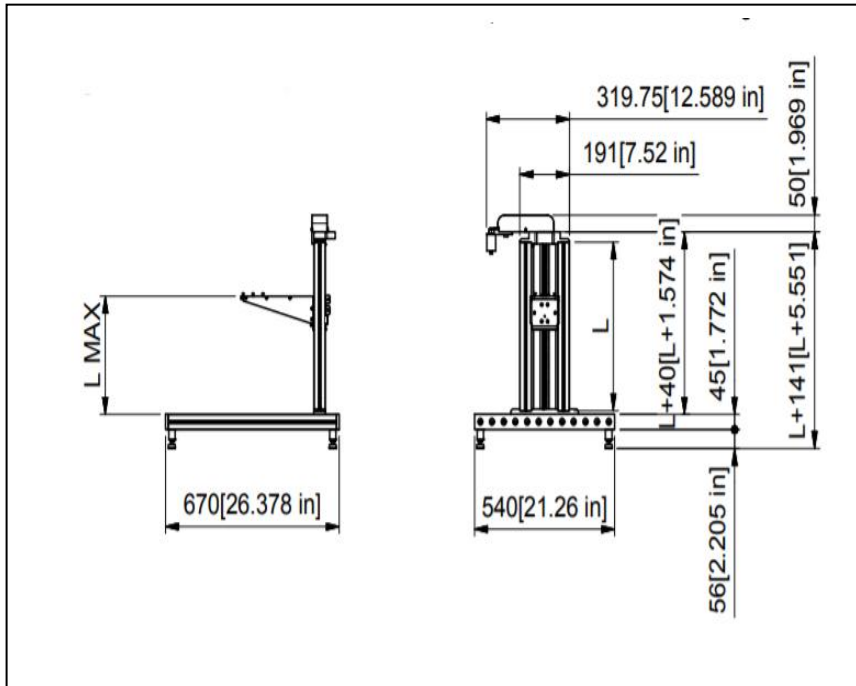
1. +15 laser head power supply
2. 15 laser head power supply
3. 24V CPU board power supply
4. 12V auxiliary power supply
5. 24V input power supply



**nanoVIS II – Other possible Class 4 configuration**

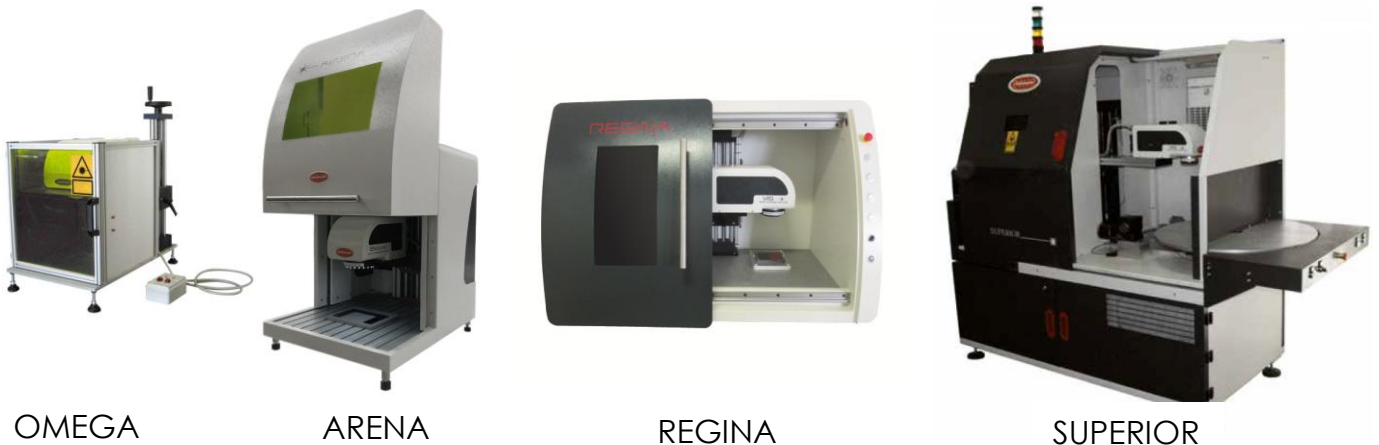
Automator nanoVIS is available in Benchtop configuration, together with the Automator standard or special Toolstand with manual and electric driven Z axis up to 1200 mm height.





**nanoVIS II - Possible Safety Class 1 configurations**

nanoVIS II is available also in different Safety Class 1 Configurations, set in an Automator laser enclosure with a wide range of loading and marking areas.



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