

HMI PLC Motion Control

The future of the Motion and PLC



Operating Panel HMI



AXIOM - T43



AXIOM - T7

Model	AXIOM T4,3	AXIOM T7	AXIOM PLUS
Display Size	4,3" (95x54mm)	7" (152x91mm)	7" (152x91mm)
Display Resolution	480x272 pixel	800x480 pixel	800x480 pixel
Number of color	65536	65536	262144
Backlight type	LED	LED	LED
Touchscreen	Yes	Yes	Yes
Programmable Key	-	-	-
Programmabili Led	-	-	-
Port Rs232	1	1	1
Port RS422-485	1	1	-
MOD-BUS Protocol	Yes	Yes	Yes
CAN-OPEN 2.0	-	-	1
Profile DS-401	-	-	Yes
Number of USB ports	1	1	2
USB type	Programming port	Programming port	1 Host- 1 Device
Port Ethernet	-	Optional	10-100 Mbit
Flash memory	32Mbyte	32Mbyte	32Mbyte
Ram memory	64Mbyte ddr	64Mbyte ddr	64Mbyte ddr
External memory type	-	SD card	USB
CPU type	32 bit 400Mhz	32 bit 400Mhz	32 bit 600Mhz
Operating system	Proprietary	Proprietary	Windows CE 6.0
Emergency Key	-	-	-
"Dead man" Key	-	-	-
Power supply voltage	24Vdc +/- 15%	24Vdc +/- 15%	24Vdc +/- 15%
Frontal protection	IP65	IP65	IP65
External dimension lxhxp	138x86x37 mm	212x146x36 mm	226x155x40 mm
Drilling plan	131x79 mm	193x139 mm	120x120 mm







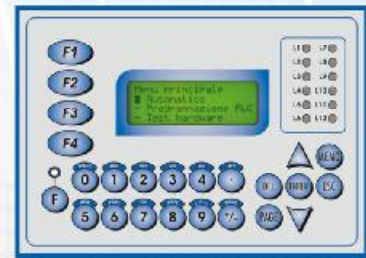
AXIOM-PLUS



AXIOM DISPLAY



AXIOM PLUS-P	AXIOM T102	AXIOM-B	AXIOM-G
			
7" (152x91mm)	10.2" (220x132mm)	-	5.1" (114x63mm)
800x480 pixel	800x480 pixel	4 righe x 20 carat.	240x128 pixel
262144	65536	2	2
LED	LED	LED	LED
Yes	Yes	-	-
12	-	24	24
-	-	13	6
1	1	1	1
-	1	1	1
Yes	Yes	Yes	Yes
1	-	1	1
Yes	-	Yes	Yes
2	1	(1) Optional	(1) Optional
1 Host- 1 Device	Programming port	Host-Device set.	Host-Device set.
10-100 Mbit	Optional	-	-
32Mbyte	32Mbyte	1Mbyte	1Mbyte
64Mbyte ddr	64Mbyte ddr	512Kbyte sram	512Kbyte sram
USB	SD card	-	-
32 bit 600Mhz	32 bit 400Mhz	32 bit 16Mhz	32 bit 16Mhz
Windows CE 6.0	Proprietary	Proprietary	Proprietary
Yes	-	-	-
Yes	-	-	-
24Vdc +/- 15%	24Vdc +/- 15%	24Vdc +/- 15%	24Vdc +/- 15%
IP20	IP65	IP65	IP65
226x155x40 mm	272x200x48 mm	210x140x60 mm	210x190x60 mm
Palmare	260x179 mm	190x135 mm	190x170 mm



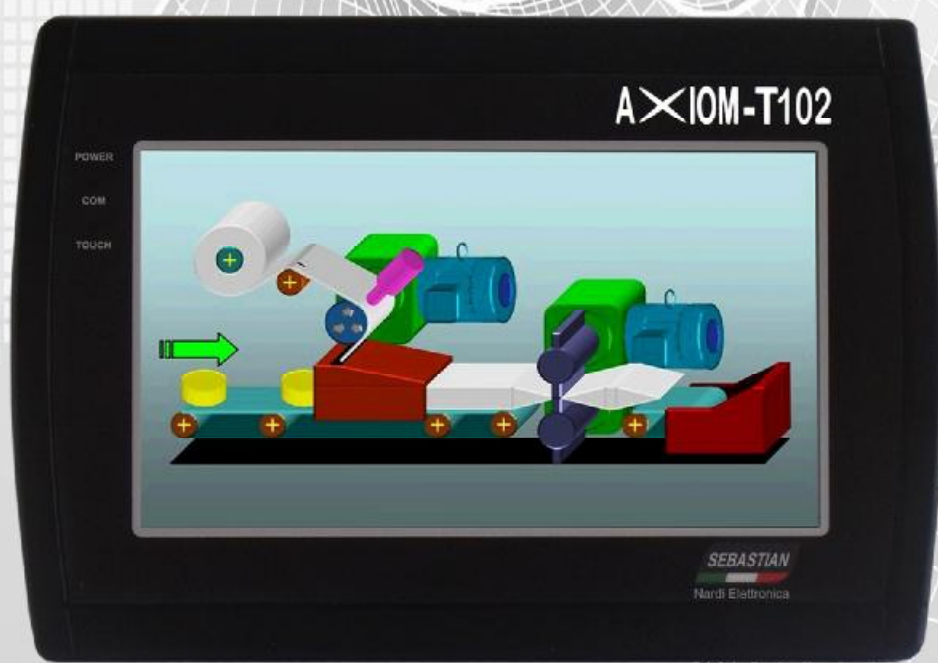
AXIOM - B



AXIOM - B



AXIOM - PLUS Handheld



AXIOM - T102



AXIOM AXIS Control

Powerfull: Processor 50Mhz, 5MByte flash, 4MByte ram.

Complete: Can-Open port, serial, USB, encoder incremental, analog output 16bit, analog input.

Compact: The more compact dimensions for a motion control with PLC, Din-rail support, 12x10 cm and only 2 cm thickness



HARDWARE FEATURES

- CISC processors 32bit 50Mhz
- 1 MB Flash Internal 32bit
- 4 MB Flash on Bus SPI
- 56 KByte RAM internal 32bit
- 4 MB SRAM 16bit
- Clock Time
- SPI port for expansion cards
- RS232 serial port
- Serial RS422-485
- Maximum speed 115,000 bps
- MOD-BUS protocol RTU Master and Slave
- USB Device
- Can Open-Port 2.0
- Profile DS-401 for PLC functions
- Profile DS-402 for Motion Control function
- 4 analog outputs + / - 10Vdc 16-bit resolution
- 2 pulse train outputs up to 100KHz
- 2 analog input 0:10Vdc 10-bit resolution
- 4 speed inputs or 5Vdc to 24Vdc interrupt
- 4 incremental encoder inputs from 5Vdc to 24Vdc
- Encoder Type: Push-Pull, Line Driver, NPN, PNP
- reading of resolver
- Bandwidth of 800kHz with a hardware filter
- Power supply 24Vdc + / - 20%, 1.5 A max
- Support for Din rail
- Dimensions WxHxD: 120x100x23 mm

SOFTWARE FEATURES

- Position control of 12 axis digital or analog mode
- Closing time position loop (RTC) at least 0.5 msec
- Managing point to point movements
- Look ahead management up to 200 traits
- Management electronic cams
- Zero on all axis simultaneously controlled
- Electrical axis master-slave relationship with a change on the fly
- Management Gantry axis
- Manage to ramps (S)
- Theoretical trajectory control / alarm tracking real
- Linear interpolation of up to 12 axis simultaneously
- 2-axis circular interpolation
- 2-axis circular interpolation axis tangent
- 3-axis helical interpolation
- Reading of ISO files
- Control drives CAN OPEN-profile DS-402 2.0
- Control drives ETHERCAT

Digital Driver



PLC Modules

**Axiom
with 1 Module**



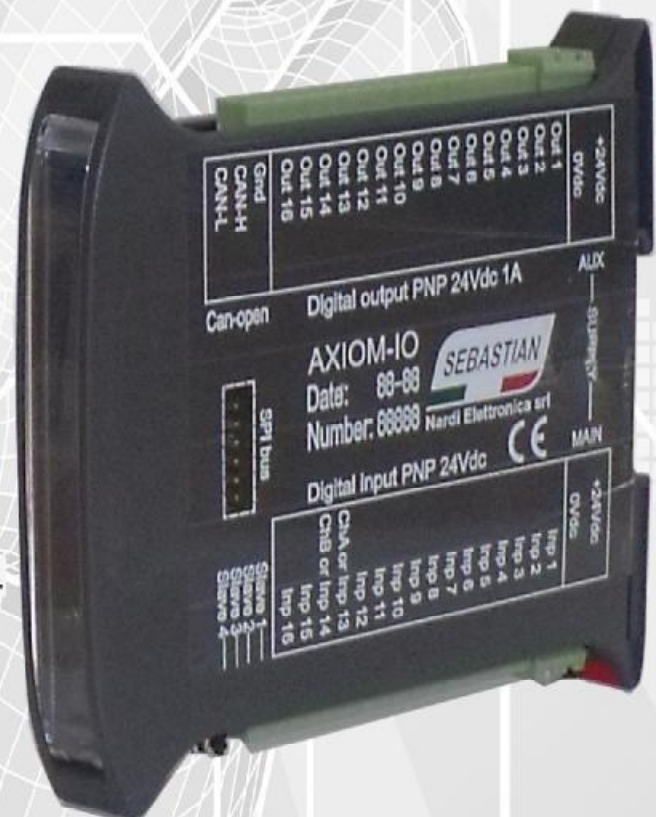
**Axiom
with 4 Modules**



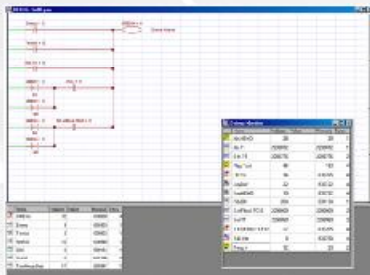
Model	AXIOM-IO	AXIOM-PACK	AXIOM-ANIO
Processor type	16 bit 20Mhz	16 bit 20Mhz	16 bit 20Mhz
Can-Open port	Optional (M)	Optional (M)	-
Number of slave board	1	1	-
Numbering by jumper	Yes	Yes	Yes
Number of digital inputs	16	8	-
Type of digital inputs	24Vdc PNP	24Vdc PNP	-
Number of fast inputs	2	2	-
Type of fast inputs	PNP 30Khz	PNP 30Khz	-
Number of analog inputs	-	4	8
Analog resolution	-	10 bit (1024)	10 bit (1024)
Number of digital output	16	8	-
Type of digital output	24Vdc PNP 1A	24Vdc PNP 1A	-
Number of analog outputs	-	2	4
Analog resolution	-	10 bit (1024)	12 bit (4096)
TTL serial output	Optional	Optional	-
MOD-BUS RTU protocol	Yes	Yes	-
Led of status display	Yes	Yes	Yes
Power supply voltage	24Vdc +/- 20%	24Vdc +/- 20%	24Vdc +/- 20%
Power consumption	Max 5 Watt	Max 5 Watt	Max 5 Watt
Separate supply for AUX	Yes	-	-
Removable terminal blocks	Yes	Yes	Yes
Dimensions LxHxP in mm	120x100x18	120x100x18	120x100x18
Support for DIN rail	Yes	Yes	Yes

SOFTWARE FEATURES

- PLC integrated in the module AXIOM.
- Running time programmable and dependent on length and structure of the program.
- Parallel task execution.
- Memory unique to Axis Control and PLC.
- Expansion of up to 256 inputs and 256 outputs.
- Up to 4 Mbytes of flash memory for data and recipes.
- Real-time debugger of all variables or a single complete branch.
- Debugger on a USB port up to speed 12Mbit/sec.
- Test Utility for the complete hardware debugger of analog and digital inputs and outputs, encoder counts.
- MOD-BUS RTU protocol is master or slave.
- Serial Protocol customizable.
- Programmable messages inside the PLC program.
- Manage messages up to 8 languages.
- Remote assistance.
- Control third-party modules in Can-Open profile DS-401.



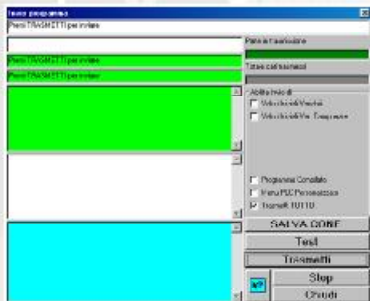
Software Development



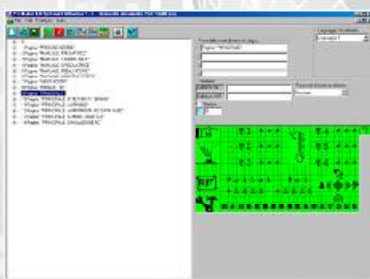
- Calling debugger functions of variables or selecting a complete branch



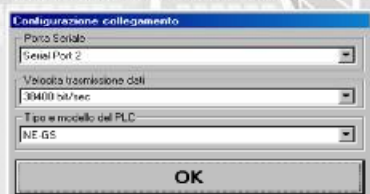
- Editor variables single for PLC Panel and motion control operator, with functions ordering and comments.



- Possibility to transfer any part of the program, from the only variables to all the program with a single click.

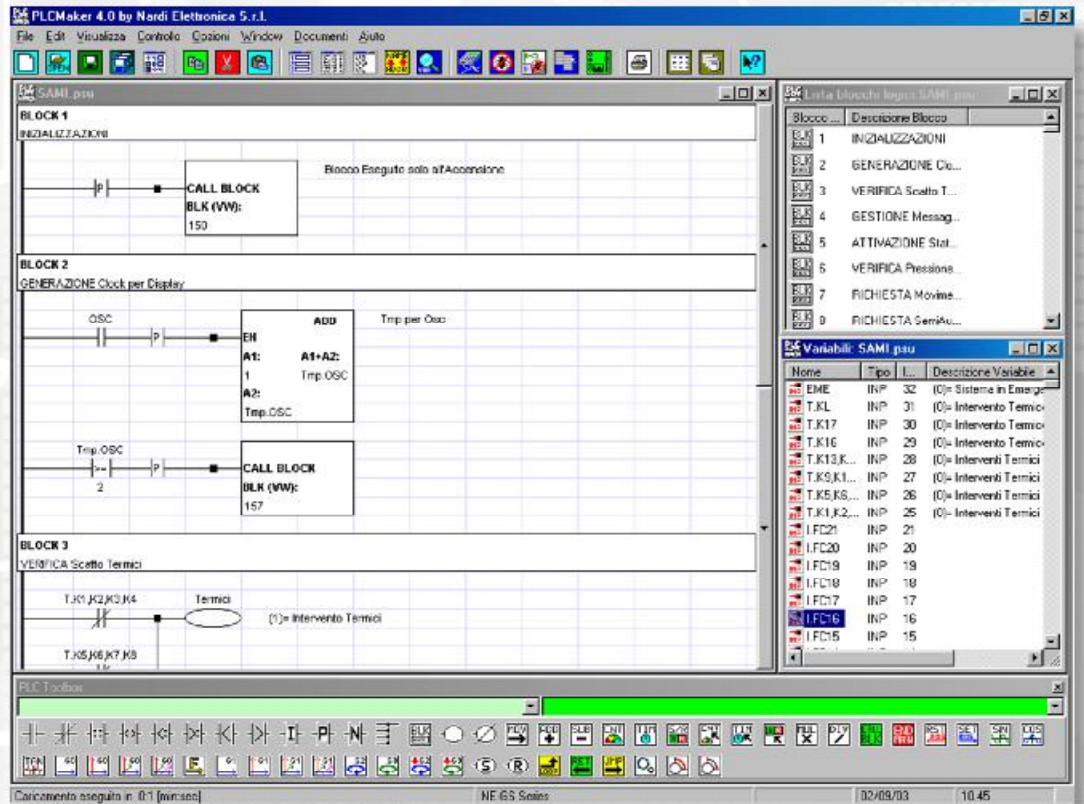


- Powerful integrated editor in the program to create recipes, Custom Menu in multiple languages in graphical mode.



- Easy configuration PC-Connection Control.

- Wide choice of commands and functions in "C" language.



PLC-MAKER

The software PLC-MAKER is the 'development environment for programming the PLC and motion control of Nardi Elettronica. The realization of this development environment was considered of primary importance, the simplicity of use. Is contained in a single environment the possibility of programming all functions of our control, PLCs, motion control, operator panel, ISO files and functions in "C" language. The result has been achieved by creating a family environment consisting of windows which can be operated with simple mouse movements and a common interface to Windows programs. The programs can be developed using programming contacts (ladder) or by also complex functions, developed in "C" language and called by the program as blocks. The thing we are always proud of is that this software is entirely developed and continually updated by our software department, and specifically designed for our products. So this is not a third-party product, adapted to our needs. PLC-MAKER, so it will continue to grow with our products, so we can offer all our customers, a product up to date, powerful and evolved, THE HEIGHT OF YOUR NEEDS.

Software available:

MARBLE SECTOR

- Milling machines
- Multiple headers
- Diamond wire saw
- Working Centres
- Filterpresses

PAPER INDUSTRY

- Pharmaceutical Labelling
- Machinery flexographic
- Plotters dispensers

ALUMINIUM INDUSTRY

- Single head cutting-off machines
- Twin head cutting-off machines
- Machining centers

PACKAGING

- Flow Pack Machines
- Vertical Packaging Machines
- Horizontal Packaging Machines
- Thermoforming
- Strapping
- Palletizers
- Labelling

GLASS SECTOR

- Dryers
- Tables for cutting linear
- Tables for cutting circular
- Cutting Plotter with axis tangent

WINE INDUSTRY

- Filling machines
- Oxygen
- remixed

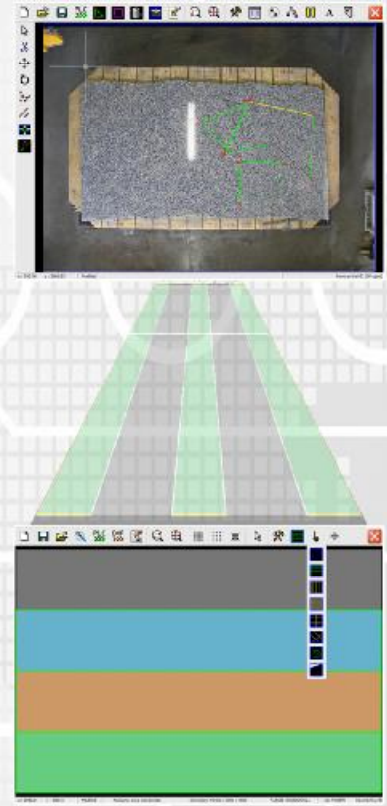
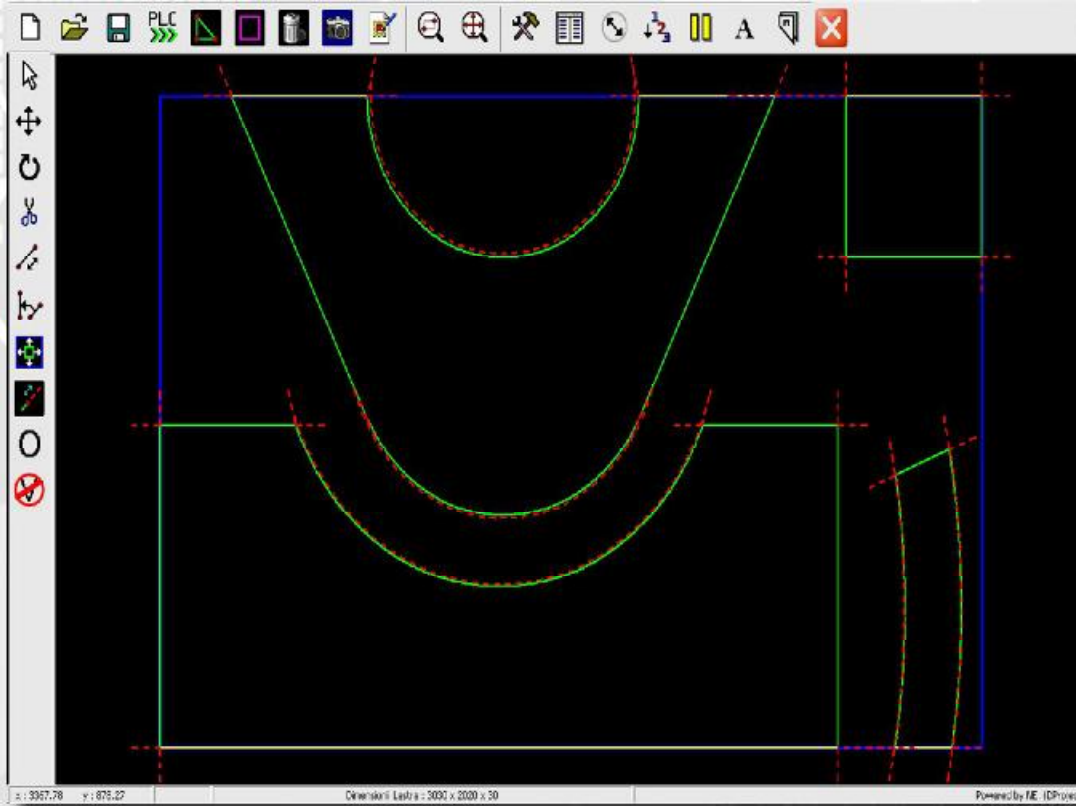
WOOD INDUSTRY

- Dryers for wood
- Milling Machines for Wood
- Presses
- Finger-joint
- Laminating Lines
- Palletizers
- Cross-cut saws

Software



Nardi Elettronica srl



CAD

Powerful CAD software fully developed in our software department, to satisfy the needs of those who claim to you as a complete package to draw, place and create ISO files, then be transmitted to our motion control and PLC. Ownership and control software, allows you to make changes for your requirements, in any sector.

CAM

The natural complement to our CAD and CAM, also developed by our software department. Allows full control and supervision of your machines. The software is developed for Windows XP to Windows 7. Our engineers are available to customize and to satisfy your requirements.

• X	39.80	0.00
• Y	89.00	2500.00
• Z	-174.43	-600.00
• W	0.00	0.00

AUTOMATICO TAGLIO SAGOME

Attesa Movimenti Fermi

W Sbloccato

INCLINAZIONE 0.02
DISCO

Taglio - m/min 0.0
Ritorno - m/min 0.0
Soglia A 24 Allarme A 0

D/U rpm 1 / 1345

LUBRIFICAZIONE

Ciclo non Concluso Zona SX e DX

TAGLIO UNICO
LUCIDATURA
TAGLIO MATTONELLE
SPIANATA
DISEGNA SAGOMA
DISPON SAGOMA
PARAMETRI
TEST
DISCO
ABILITAZIONI
QUIT

Y	0.0
X	0.0
D1 S/D	0.0
D1 A/I	0.0
D2 S/D	0.0
D2 A/I	0.0
D3 S/D	0.0
D3 A/I	0.0
D4 S/D	0.0
D4 R	0.0
Mandrino	0.0

TAGLIO MATTONELLE

TIPO TAGLIO: []

DIRIZIONE CUT: []

DIRIZIONE DUE: []

DIRIZIONE RISULTA: []

TATTO LOGGIA A FINE C. CILC: []

STOP CAMBIO: []

Nome [1]	Nome [4]	Nome [7]
Velocità [1]	Velocità [4]	Velocità [7]
Accel. [1]	Accel. [4]	Accel. [7]
Nome [2]	Nome [5]	Nome [8]
Velocità [2]	Velocità [5]	Velocità [8]
Accel. [2]	Accel. [5]	Accel. [8]
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Accel. [3]	Accel. [6]	Accel. [9]



Nardi Elettronica of with a view to improve its products can make any changes on products without any notice

NARDI ELETTRONICA for more than 15 years, designs and produces boards, controls plc and motion control. Years of experience have permission to organize a department hardware and software the vanguard for each sector competence.

The HARDWARE department, designing circuit boards, managing internal the entire supply chain from concept, to implementation of patterns, the realization of the master to industrialization of the final product.

In the SOFTWARE department, an expert team of engineers develop any type of software to support our products, firmware, software control, software for Windows CE, up to the PC monitoring software.

Our core business is focused on industrial automation equipment from PLCs to the Motion Control, from the panels 2 lines x 16 characters, to the color touch screen about Windows CE operating system.

What NARDI ELETTRONICA, always be proud of is that everything is MADE IN ITALY, at our headquarters forgive our customers, who need all the support, in a direct, fast and professional

Our Service in the World

MESSICO: TECNOLEGNO S.A. DE C.V.

Mocuzari no. 2015
36631 Irapuato Gto
Tel: +462 4903746102 Fax +462 6241855
E-mail ventas@tecnolegno.com.mx

FRANCIA: NANTAISE DE MACHINES A BOIS

17 Rye Agena ZI Belle Etoile
44483 Carquefoli Cedex
Tel: +33 2401883300 Fax +33 240188310
E-mail nmb@gedimo.com

RUSSIA: OOO KASTI NARDI RUSSIA

1 Miusskaya str 22-24
125047 Moscow
Tel: +74 952509612 Fax +74 999781149
E-mail kasti@lst.ru

SLOVACCHIA: EXCELLENT CD: SPOL S.R.O.

S.Moyzesa 1193/3 P.O. BOX 124
SK-96140 Zvolen
Tel: +42 1455249160 Fax +42 1455249169
E-mail office@excellentcd.sk

LETTONIA: INFLEKS SIA

Viskalu iela 276
LV-1026 Riga
Tel: +37 17551879 Fax +37 17551658
E-mail infleks@infleks.lv

BRASILE: ATIVA AUTOMAÇÃO LTDA

Rua Embiruçu, 250 - Sala 408 e 410
CEP:13098-320- Alphaville-Campinas-SP
Tel/Fax: +55 01932621677
E-mail persio@ativa-automacao.com.br

CINA: Shanghai VAPE Electric Co., Ltd.

Room302-1#, No. 860 Huaxia(E) Road,
201299, Shanghai Pudong.
Tel: +86 2161508196
E-mail dgmservo@163.com
www.shvape.com



HEAD QUARTERS:

Strada della Selva 83-85
37047 San Bonifacio - Verona- Italia
Tel +39 045 7660663 Fax +39 045 7660607
web : www.nardielettronica.com
mail : nardielettronica@nardielettronica.com

