

ePC XS



XS595
65k-Colors TFT LCD
800 x 600 (12,1")



XS585
65k-Colors TFT LCD
640 x 480 (10,4")

These new products are based on PC technology with Celeron family processors which are powerful, scalable and economical in terms of energy consumption. They offer wide-ranging connectivity thanks to standard PC interfaces, including Ethernet. Furthermore, the Windows® XP Embedded guarantees compatibility with applications used on PCs. The architecture has been specially designed for industrial environments, where critical conditions can subject rotating parts (like hard disks and fans) to great stress. These products, in fact, do not require cooling fans and use an internal Flash as mass memory, thereby minimizing the need for maintenance.



XS615
LCD 65k Colors TFT
1024 x 768 (15")

Features for CE Terminals

New architecture:

- New family of processors (VIA Eden 400MHz) with increased power
- Same technical characteristics and interfaces for all three models whose only differences lie in their dimensions and display type
- PCI bus with 1 slot available for the user
- Mass memory expansion on Compact Flash or CardBus slots
- Windows® CE 4.2 .NET operating system

Top-level reliability:

- Fanless and without rotating parts
- No hard disk reliability problems thanks to the use of solid state mass memory
- Requires no maintenance

Increased flexibility:

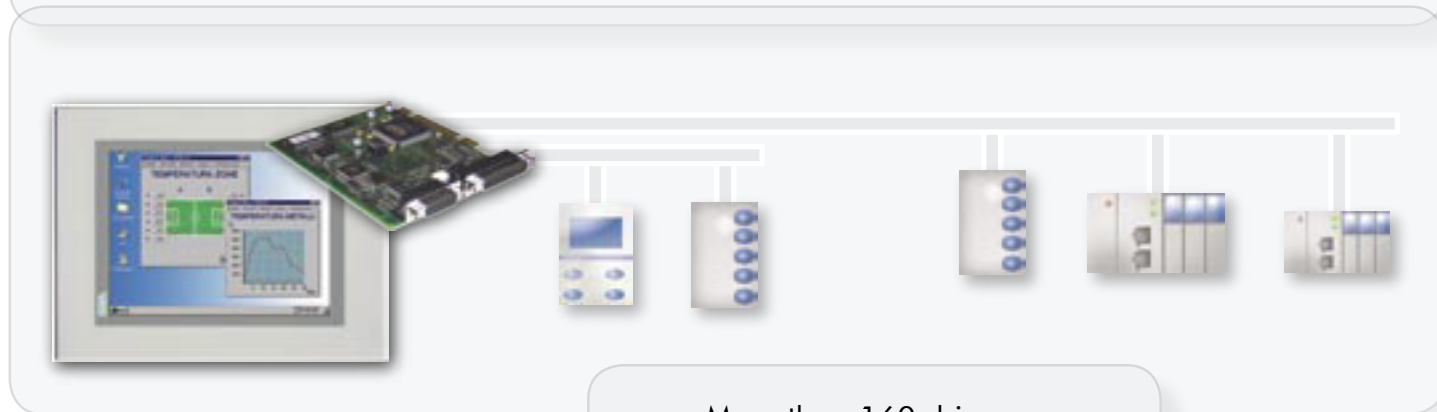
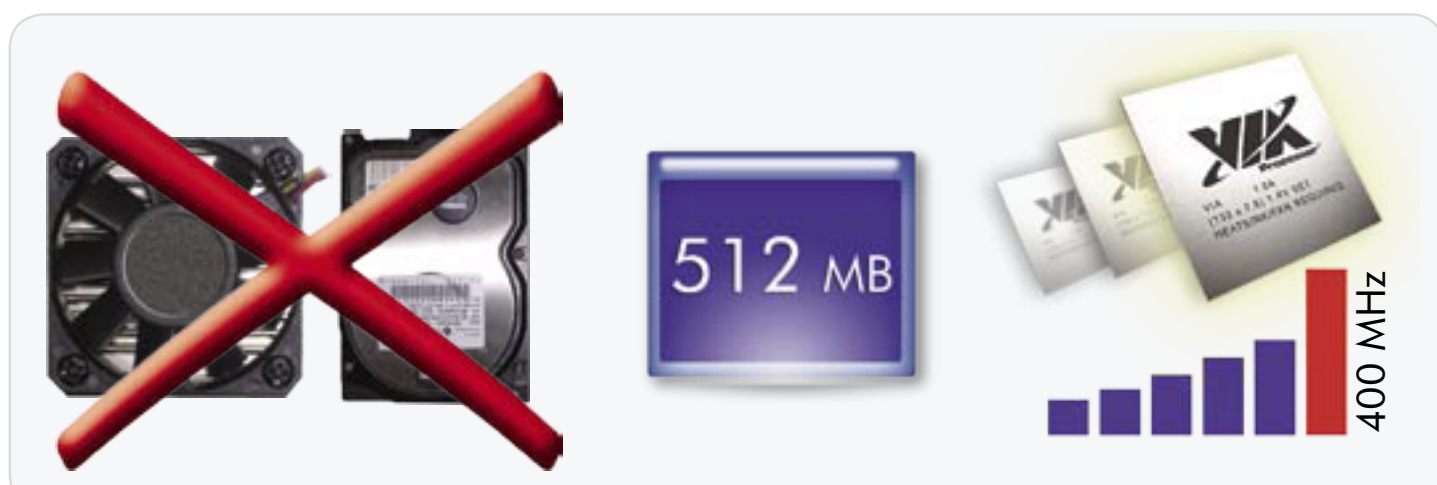
- Can be used both with Scada applications available on the market and with proprietary applications written by the user in the most widely used languages

Autorun

- Autorun function for starting the application automatically the moment the terminal is switched on

Included in the image installed in the terminal:

- WordPad for editing and creating text files compatible with the analogous PC application package
- Internet Explorer for Windows® CE
- Applications and services for developers



More than 160 drivers
Same cables as Operator Terminals
See pages 18 and 20



CIB (Communications Interface Board)

The CIB is an intelligent Communications board with its own processor. It is capable of using all of the over 160 Communications protocols developed by ESA including some field buses (e.g. CAN).

It can be installed in any VTxxxCE by using a PCI bus. The CIB can handle two protocols simultaneously (i.e. a system with a PLC and an inverter).

The CIB is fully supported by a compliant OPC server. OPC allows the CIB to work with the overwhelming majority of SCADA software packages on the market. OPC allows the CIB to work well with customer-developed applications written in popular languages (e.g. VisualBasic, C++).

Features for XS Terminals

Architecture:

- New family of processors (Intel® Celeron® 400-650MHz Pentium® M 933MHz) with increased power
- Same technical characteristics and interfaces for all three models whose only differences lie in their dimensions and display type
- PCI bus with 1 slot available for user
- Mass memory expansion on Compact Flash or CardBus slots
- Windows® XPe operating system
- Ethernet 10/100 On-board

Top-level reliability:

- Fanless and without rotating parts
- No hard disk reliability problems thanks to the use of solid state mass memory
- Requires no maintenance

Autorun

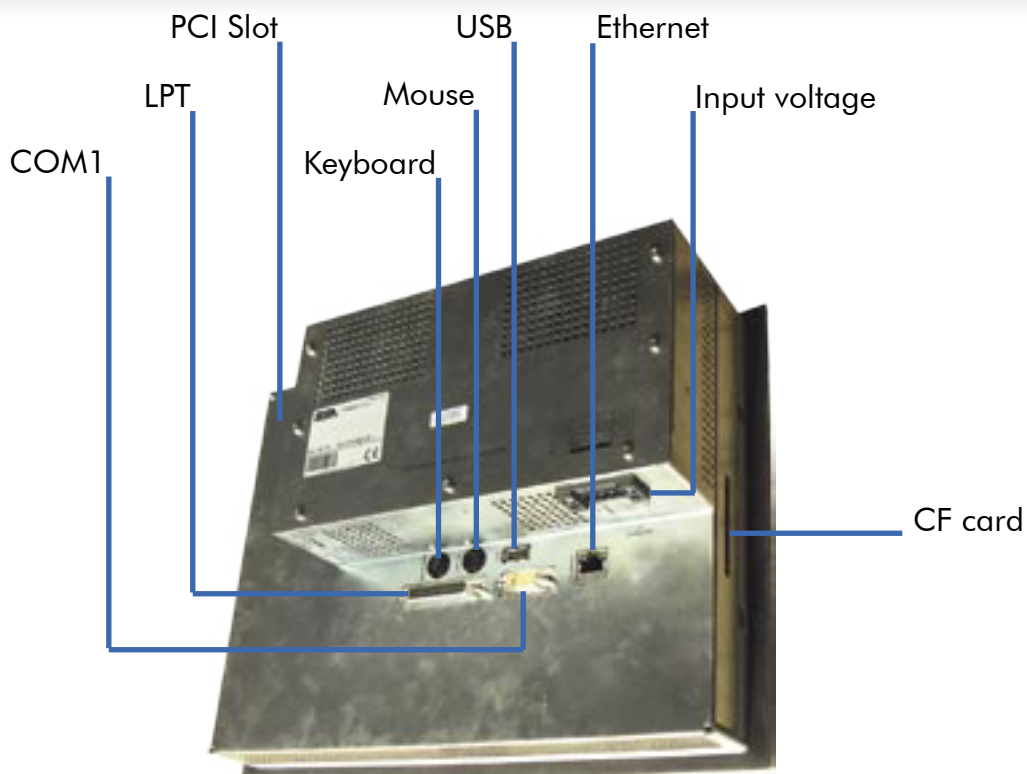
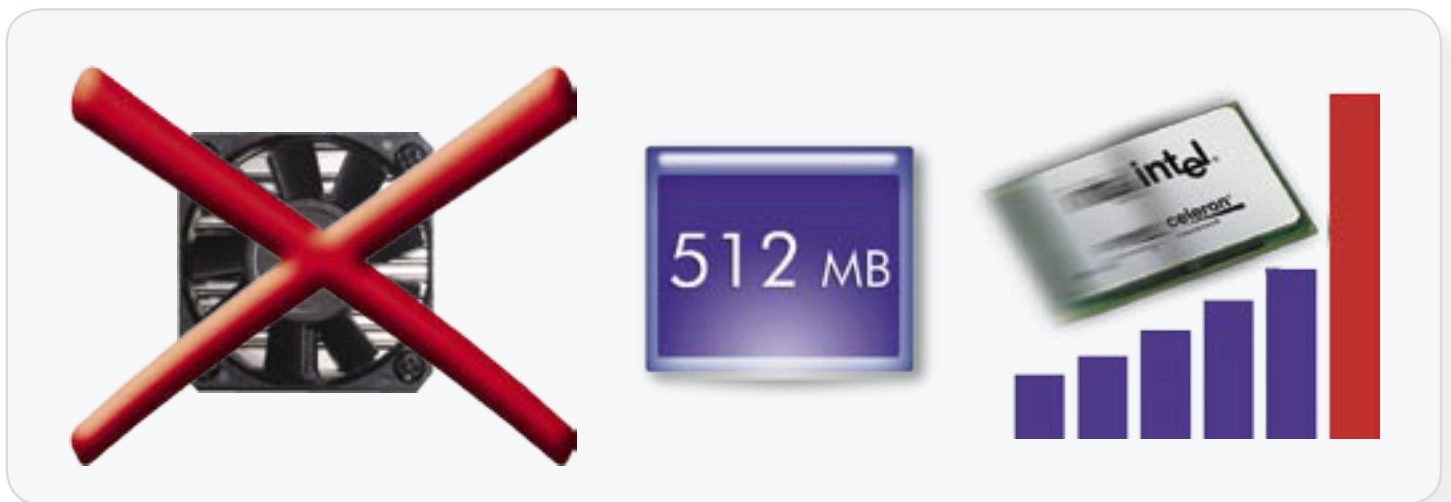
- Autorun function for starting the application automatically the moment the terminal is switched on

Greater flexibility

- The architecture provides for the possibility of extending the RAM memory and the mass memory and increasing the power of the processor to make the product comparable with a PC

Complete compatibility with PCs

- The XP Embedded operating system also ensures compatibility with the applications used on PCs



XS Configurator

X	S	5	n	n	X	P	0	T	n	n	n
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585: LCD 10,4" 65K-Colors
595: LCD 12,1" 65K-Colors

2: Intel® Celeron® 400MHz
3: Intel® Celeron® 650MHz

0: 128 MB RAM
1: 256 MB RAM
2: 512 MB RAM

3: 512 MB Flash
4: 1024 MB Flash

Operating System codes and descriptions

XSSYSWINXPEEN01	Windows® XP Embedded English Basic (256MB) Operating System
XSSYSWINXPEEN02	Windows® XP Embedded English Extended (512MB) Operating System

Accessories codes and descriptions

VT5BATTERY	3,6V lithium battery for maintaining clock and system data
PROTFILM10	Transparent adhesive protective foils for Touch Screen 10" (5 pieces)
PROTFILM12	Transparent adhesive protective foils for Touch Screen 12" (5 pieces)

X	S	6	1	5	X	P	0	T	n	n	n	n	1
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615: LCD 15"

4: Intel® Celeron® M600MHz
5: Intel® Pentium® M1.1MHz
6: Intel® Pentium® M1.6MHz+fan

1: 256 MB RAM
2: 512 MB RAM

4: 1024 MB Flash
5: 2048 MB Flash
H: Hard Disk > 40 GB

0: No Disk Drive
1: CDROM

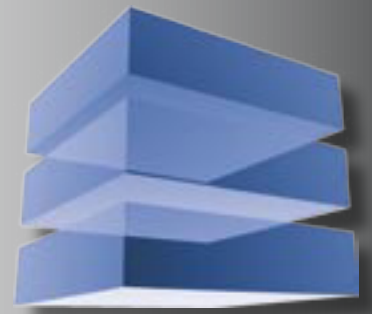
1: 2 x RS232

Operating System codes and descriptions

XSSYSWINXPEEN03	XP Embedded Operating System Basic Version (512 MB flash), English
XSSYSWINXPEEN00	Windows® XP professional, English (XS615 with HDD)

Accessories codes and descriptions

VT5BATTERY	3,6V lithium battery for maintaining clock and system data
PROTFILM10	Transparent adhesive protective foils for Touch Screen 10" (5 pieces)
PROTFILM12	Transparent adhesive protective foils for Touch Screen 12" (5 pieces)



Industrial PC



- 38 Panel PC and Workstation
- 40 Wallmount iPCs and LCD Monitors
- 42 Options and iPC accessories
- 44 Advantages of iPCs

General information	PC221x	PC222x	PC223x	PC2120
Chassis	Heavy-duty steel & aluminium front frame - IP65			Heavy-duty steel & aluminium front frame - IP65
Mounting	Panel mount		Rack	Rack, 8U height

Architecture				
CPU	Intel® Celeron™ 2GHz - Intel® Pentium® 4 2.4, 2.8GHz			
RAM Memory	128...1024 MB DDR			128...2048 MB DDR
LCD/CRT controller	Intel i845GV, AGP 4X			Intel 82845GV
Ethernet Network (LAN)	10/100 Base-T			
Disk Drives	HDD, FDD, CD-ROM/Combo			
Storage	Card Reader 6 in 1 CF I/II, SD, MMC, MS (PRO), SM			-
Free expansion slots	2 PCI			5 (up to 4 PCI or 5 ISA)

LCD Display specifications				
Type	12,1" SVGA color TFT	15" XGA color TFT	17" SXGA color TFT	15" XGA color TFT
Max. Resolution h-v (pixels)	800x600	1024x768	1280x1024	1024x768
Max. Colors	256k			
Dot size (mm h-v)	0,3075x0,3075	0,297x0,297	0,264x0,264	0,297x0,297
Luminance (cd/m ²)	350	260	260	250
Viewing angle (°)	140 (H) - 120 (V)	150 (H) - 145 (V)	140 (H) - 140 (V)	150 (H) - 125 (V)
Operating temperature (°C)	0...+50			
LCD/Back Light MTBF (h)	50.000	30.000	50.000	50.000

I/O ports				
Serial ports 120x/1301 series	2 x RS232 - 1 x RS232/422/485			1 x RS232 - 1 x RS232/422/485
Parallel port (supports ECP/EPP)	1			
Keyboard PS/2 port	1			
Mouse PS/2 interface	1			
USB connectors	5			2
VGA connectors	1			-
Soundcard connectors	MIC, Line-in, Speaker-out, S/P DIF-out			MIC, Line-in, Speaker
Digital I/O	up to 16 in or 16 out			-

Power supply				
Universal switching power supply	100...240Vac/250 W, 19...32 Vdc/200 W (250 W PC2120)			
Safety	UL, CUL, TUV			

Technical data				
Dimensions (W x H x D) (mm)	407x310,5x65	444x336x144	483x399x145	483x355x235
Cut-out (W x H) (mm)	333x297	405x299	449x367	437x342
Weight (kg)	12	15	18	26
Operating temperature (°C)	0...+50			
Storage temperature (°C)	-20...+60			
Storage humidity	10...90%, non condensing			
Vibration	5...500 Hz, 1G random operation			
Shock	15G peak acceleration (11 msec. duration)			
EMI	CE/FCC			

Touchscreen (120x only)				
Type	analog resistive			-
Resolution (pixel)	2048x2048			-
Light transmission	75%			-
Lifetime (millions of operations)	1			-
OS support	Windows® 98SE/2000/XP			-

Panel iPCs and Workstation



PC221x
256k-Color TFT LCD
800 x 600 (12,1")



PC223x
256k-Color TFT LCD
1280 x 1024 (17")



PC222x
256k-Color TFT LCD
1024 x 768 (15")



PC2120
256k-Color TFT LCD
1024 x 768 (15")

Main characteristics (depending on model):

- Completely configurable
- 6 in 1 Card Reader
- USB on front face
- IP65 front face
- Hard disk on anti-shock support
- Intel® Celeron® and Pentium® 4 processors
- 12", 15" or 17" TFT display
- Touch Screen
- from 128 to 2048 MB of RAM
- Expandable using ISA bus and PCI

PC codes and descriptions

PC2xxx	Refer to pages 42 and 43 for configuration
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General information	PC2000	PCDISPLAY12(TS)	PCDISPLAY15(TS)	PCDISPLAY17(TS)
Chassis	Heavy-duty stainless steel - IP65	Heavy-duty stainless steel & aluminium		front frame - IP65
Mounting	Panel mount	Panel mount/Rear mount		Panel mount/Rear mount/Rack 9U

Architecture				
CPU	up to Intel® Pentium® 4 2.8GHz		-	
RAM Memory	128...2048 MB DDR		-	
LCD/CRT controller	Intel 82845GV		-	
Ethernet Network (LAN)	10/100 Base-T		-	
Disk Drives	HDD, FDD, CD-ROM		-	
Free expansion slots	5 (upto 4 PCI or 3 ISA)		-	

LCD Display specifications				
Type	-	12,1" SVGA color TFT	15" XGA color TFT	17" SXGA color TFT
Max. Resolution h-v (pixels)	-	800x600	1024x768	1280x1024
Max. Colors	-	262K		16.2M
Dot size (mm h-v)	-	0,3075x0,3075	0,297x0,297	0,264x0,264
Luminance (cd/m ²)	-	350	250	300
Viewing angle (°)	-	140 (H) - 120 (V)	150 (H) - 145 (V)	160 (H) - 160 (V)
Operating temperature (°C)	-	0...+45		
Back Light MTBF (h)	-	50.000		40.000

I/O ports			
Serial ports	2 x RS232	RS232 for touch screen	
Parallel port (supports ECP/EPP)	1	-	
Keyboard PS/2 port	1	-	
Mouse PS/2 interface	1	-	
USB connectors	2	-	
VGA connectors	1	1 (for PC connection)	
Soundcard connectors	MIC, Line-in, Speaker	-	
Video input connectors	-	Composite, S-Video	

Power supply		
Universal switching power supply	18...30 Vdc/250 W	Input:100...240 Vac, output: 12 Vdc (external)
Safety	UL, CUL, TUV	UL, CUL, TUV

Technical data				
Dimensions (W x H x D) (mm)	330x408x172	366x291x85,7 ¹	444x336x90,3 ¹	483x399x94,2 ¹
Cut-out (W x H) (mm)	-	333x258	405x299	449x365
Weight (kg)	10	5,5	6,5	15,3
Operating temperature (°C)	0...+50	0...+45		
Storage temperature (°C)	-20...+60			
Storage humidity	10...90%, non condensing			
Vibration	5...17 Hz, 0,1" double-amplitude displacement -17...500 Hz, 1,5G peak to peak			
Shock	15G peak acceleration (11 msec. Duration)			
EMI	CE/FCC			

Touch screen (TS models)			
Type	-	Analog resistive	
Resolution (px)	-	1024x1024	4096x4096
Light transmission	-	75%	
Lifetime (millions of operations)	-	1	35
Operating pressure (g)	-	50	<113
Response time (ms)	-	<10	
OS support	-	MS DOS®, Windows® 3.1/95/98/NT/ME/2000/XP	

① - The total depth includes the rear-mounted power supply (37 mm)

Wallmount iPCs and LCD Monitors



PCDISPLAY12(TS)
262k-Color TFT LCD
800 x 600 (12,1")



PCDISPLAY15(TS)
262k-Color TFT LCD
1024 x 768 (15")



PC2000
Intel® Celeron™ Processor, P4



PCDISPLAY17(TS)
16M-Color TFT LCD
1280 x 1024 (17")

Features of wallmounted iPCs:

- Installable in cabinets
- Can be combined with panel monitor

Features of monitor:

- LCD display of 12", 15" or 17"
- Touch Screen
- VGA input
- Analog video (composite and S-video) input

PC/Monitor codes and descriptions

PC2000	Refer to pages 42 and 43 for configuration
PCDISPLAY12TS	12" LCD Monitor - Touch
PCDISPLAY12	12" LCD Monitor
PCDISPLAY15TS	15" LCD Monitor - Touch
PCDISPLAY15	15" LCD Monitor
PCDISPLAY17TS	17" LCD Monitor - Touch
PCDISPLAY17	17" LCD Monitor

A 1.5 m VGA connection cable is included with all monitors; a 1.5 m serial cable is also included with touch screen models

Options and iPC accessories

	PC221x	PC222x	PC223x	PC2120	PC2000
Main Board					
Standard	√	√	√	-	-
SBC860	-	-	-	√	√
CPU					
Intel® Celeron™ 566MHz	-	-	-	-	-
Intel® Celeron™ 2GHz	√	√	√	√	√
Intel® Pentium® 4 2.4GHz	√	√	√	√	√
Intel® Pentium® 4 2.8GHz	√	√	√	√	√
RAM					
128 MB	√	√	√	√	√
256 MB	√	√	√	√	√
512 MB	√	√	√	√	√
1024 MB	√	√	√	√	√
2048 MB	-	-	-	√	√
HDD					
20 GB 2,5"	-	-	-	-	-
40 GB 2,5"	√	√	√	-	-
60 GB 2,5"	√	√	√	-	-
40 GB 3,5"	-	-	-	√	√
80 GB 3,5"	-	-	-	√	√
Disk					
FDD	-	-	-	√	√
CD-ROM	-	-	-	-	√
Slim FDD	-	√	√	-	-
Slim CD-ROM	√	√	√	√	-
Slim combo DVD	√	√	√	√	-
Optional					
Touch-Screen	√	√	√	-	-
Power Supply					
24 VDC	√	√	√	√	√
220 VAC	√	√	√	√	-



PCPAR ISA(B)
Centronics parallel port
for ISA bus



PCSER ISA(B)
Serial port for ISA bus
(two RS232 ports)



PCSYSWINxxx
Operating System: Windows® XP,

Accessories codes and descriptions

PCSYSWINPPPxx (xx=IT,EN,FR,GE,SP)	Windows® XP Professional SP2 operating system Available in Italian, English, French, German and Spanish
PCSER ISA	Serial port for ISA bus (2 RS232 ports) supplied installed on PC
PCPAR ISA	Centronics parallel port for ISA bus supplied installed on the PC
PCSER ISAB	Serial port for ISA bus (2 RS232 ports) installable by the user
PCPAR ISAB	Centronics parallel port for ISA bus installable by the user

PC accessories include:

- Most widespread operating systems supplied preinstalled on the PC and with backup CD-ROM.
- Additional serial and parallel cards that can be supplied already installed on the PC or acquired separately and installed later on.

iPC Configurator

P	C	2	n	n	n	-	n	n	n	n	n	n
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Category
0: Control Box
1: Workstation
2: Panel PC

Display
0: No
1: 12"
2: 15"
3: 17"

Touch Screen
0: No
1: Yes

CPU
1: Intel® Celeron™ 2GHz
2: Intel® Pentium® 4 2.4GHz
3: Intel® Pentium® 4 2.8GHz

RAM
1: 128 MB
2: 256 MB
3: 512 MB
4: 1024 MB
5: 2048 MB

Hard Disk
1: 40 GB
2: 60 GB
3: 80 GB

Floppy
0: No
1: Yes

CD/DVD Drive
0: No
1: CD-ROM
2: Combo DVD

Power Supply
1: 24 VDC
2: 220 VAC

Example:

Codes and descriptions PCs

PC 2211-231021	Panel PC, Display: 12", Touch, CPU: Intel® Pentium® 4 2.4GHz, RAM: 512 MB, HDD: 40GB, Combo CD-ROM, 24 VDC
PC 2000-111111	Control Box, CPU: Intel® Celeron™ 2GHz, RAM: 128 MB, HDD: 40GB, Floppy, CD-ROM, 24 VDC

Advantages of IPCs



USB on front face

The Panel PCs of the 22xx series have no less than five USB ports in the 2.0 version. One of these ports is frontally accessible to the PC installed: it can thus be used to connect peripheral devices of various types, like USB keys or pens for transferring data. The port can be protected against undesired access by the BIOS. To connect, just remove a plug, which, when closed, ensures IP65 front face protection.



6 in 1 Card Reader

The Panel PCs of the 22xx series include an interface, protected by a hinged flap on the side of the chassis, that supports six different memory card formats: Compact Flash, Secure Digital, Multi Media Card, Memory Stick (PRO) and Smart Media. In this way the customer can transfer or backup data using this type of support, standard and static, thus safe and reliable.

Front access

The Workstations (PCs with keyboard) have a system for opening the front that gives access to the CD-ROM and Floppy Disk drives without having to open the cabinet in which the PC is housed. The advantage is that of being able to access to the two drives without cutting off power to the machine. IP65 front protection is obtained when the PC is closed.



46	Polymath
48	Advantages of Polymath



POLYMATH

- What is Polymath? Polymath is ESA elettronica's new programming software for terminals based on Windows CE. It is developed by .NET technology and is aligned with the latest generation of configurators.

- Who should use Polymath? Users who want to continue using panels belonging to the VTWIN family with a more powerful editor offering a greater range of functions, and users who want to use the new IT family of panels (based on Windows CE), benefiting from its single development environment.

- What are Polymath's advantages? It has an interface that is both more modern and more complete and offers functions that keep abreast of the new requirements of HMIs. Polymath allows the user to use the editing and running phases of the project to their utmost both in terms of time and in terms of effectiveness. Among the many advantages offered by the standard operative system there stands out the fact that there are no longer limits to storage of data, of recipes and of alarms which are managed on the panels simply like files and storable in the integrated compact flash, on a removable support or in the network.

- Two versions: Basic which allows users to program only the VT product family, Advanced with all uses and for all product families.



Order codes of Polymath	
POLYMATHKIT	Polymath Software kit - Advanced Version
POLYMATHBASIC	Polymath Software kit - Basic Version
The kit includes the following products:	
CVUSB11102	Programming cable: USB-A PC --> USB-B IT
CVADUSB9M	USB-B --> 9 pin male adapter
CVAD9F25M	9 pin female --> 25 pin male adapter



All the terminals belonging to the Esa product range (VT, VTCE, IT) are configurable with a single software: Polymath.

VT Terminals

Text: VT50, VT60, VT150, VT160, VT170, VT190

Graphic: VT300, VT310, VT320, VT330

Touch: VT155, VT185, VT505, VT515, VT525, VT555, VT560

High performance Touch: VT565, VT575, VT580, VT585, VT595

Hand Held: VT505H, VT525H

Adapters: VTINTERBUS, VTCAN, VTPROFI/DP

VTCE Terminals

VT575CE, VT585CE, VT595CE

IT Terminals

IT105, IT107

Advantages of POLYMATH

Complex controls

Complex controls make it easy to manage data structures like trends, user groups, alarms and recipes. A single click allows you to add to the page an object that includes the complete control table and all the predefined keys for control.



Library of objects

Polymath has a rich library of objects that make a big graphic impact. The objects available, like buttons, indicators, valves, are divided into categories and are easy to position in the pages by drag&drop, making page layout extremely efficient. In addition, every object is configurable so that it can be adapted to the user's needs.

Popup

Popup pages are smaller than the project pages, in relation to which they can be superimposed, thereby making it possible to manage information and messages on more than one level.

In this way advice or indications relating to events and operations can be supplied immediately without changing context and without this being necessarily dependent on which page is being displayed.





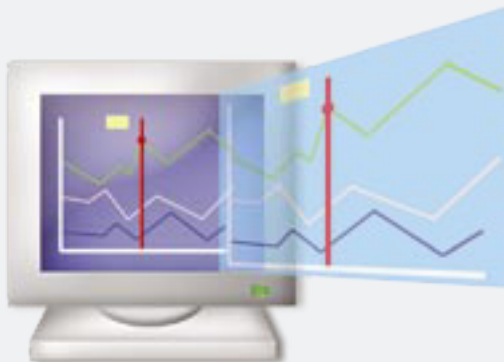
Frame

Frames are objects which offer the advantage of being able to create individual portions of pages to be inserted more than once in different project pages. Examples of use of frames are the lateral menus or the navigation bars, which once created can be used anywhere in the project.

Multistructural recipes

Different recipe structures, each containing a different variable number, can be managed.

The flexibility of this function means that sets of data can be prepared for different production sections managed by the same terminal, for product variants with different parameters, or for plant/machine variants.



Trends

Trends allow the user to monitor the variable progress by having graphics displayed and updated in real time. The analysis of the trend is made easier by Polymath which integrates useful navigation tools: zoom, interactive cursors and value fields.

Advantages of POLYMATH

Exporting data

At any moment, all data can be exported onto removable supports, like pen drives and memory cards (Secure Digital), and onto local or network disks. In just a few seconds Alarms, Recipes and Variable logs can be accessed and modified too thanks to the LAN connection.



Reports

Reports are useful for printing data related to the state or to the history of an application (e.g. Weekly production). They can contain all the graphic objects that can be added to the pages and project data. In addition, they can be saved and archived, avoiding waste of space and paper.



User library

Management of projects and their components reaches maximum versatility thanks to the library: in it users can save any project component that has been personalized by them (pages, scripts, alarms, push-buttons etc...), to be reused later within the same project. In addition, the user library file can be copied to other PCs and used on them.





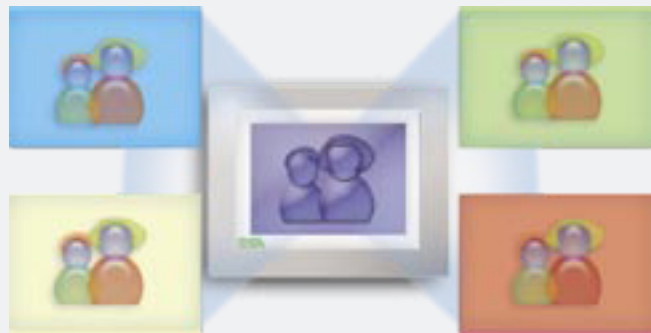
Copy/Paste

Every element of the project can be duplicated or copied and pasted into other parts of it. This function saves a lot of time in project creation.

User management

The aim of this function is to distinguish and to control the degree of operational freedom for each user in the course of any given work session.

Each project can be configured so as to control different users spread over 10 levels of authority. Any element or function can be protected by a password. It is also possible to trace users in a log file.



Guided project creation

Creating a project in Wizard mode enables users to configure their project with just a few clicks: simply choose the panels and the devices you want to interface with and the application will automatically be configured.



Advantages of POLYMATH

Automatic validation

Validation is debugging tool that gives a real time display of the list of anomalies in the project subdivided into errors and warnings; just by clicking on the corresponding line, the application will place itself at the point the correction must be made.



VBSript

Over and above the already considerable configuration possibilities, Polymath offers a further level of personalization using VBSript. VBSript is a standard language which allows users to create their own routines for managing the various elements of the project using simple functions and typical programming cycles.

Intellisense

It is thanks to Intellisense that Polymath makes it easier and quicker to create scripts showing the user at any given moment all the options available for each function or object property. The software with Intellisense is able to suggest a given function's or object's next option without the user explicitly declaring it.





Object properties

Users can define all the graphic properties, like color, dimensions, font... as well as functional properties like password level and associated functions... of all the elements in the project. In addition the scripting motor means that users can associate a script to any property, giving dynamic behavior to the to an object, for example disabling push buttons, coloring objects, displaying pages and exporting recipes...

Script execution

The execution of scripts can be associated with any anticipated or intentional event: change of value, exceeding a threshold, striking a key, elapsing of a timer, etc... Alternatively tasks can be executed in the background when the application starts up.



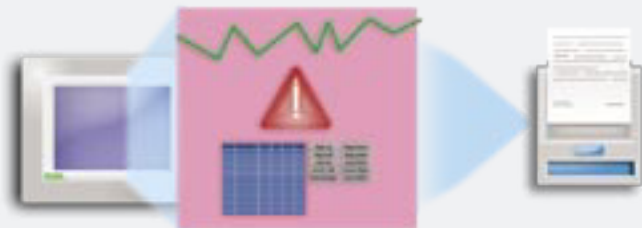
Windows fonts

All Fonts that are usable in a Windows environment can be inserted into projects, making it possible to personalize and to make the graphics of the projects more comprehensible.

Advantages of POLYMATH

Import/Export of translations

The projects can be displayed as runtime in different languages. The texts in each language can be exported and saved in standard CSV format to be more easily edited by any future translator using standard packages.



Print

Project reports containing key data of the application or the entire displayed page can be printed at any given moment by connecting a local (USB, LPT) or network printer to the terminal.

Alarms

The alarms that are available correspond to the ISA standards. In addition, alarm recognition can be configured in accordance with personalized approaches directed at groups of alarms or individual alarms. These can be catalogued into groups, each with its own priority level.



Basic graphics

There is a vast range of standard graphic elements (potentiometers, indicators, geometrical figures) that allow users to draw their pages better and represent data.



Multilanguage function

The text elements of the project can be configured in various languages (including Oriental, Cyrillic, Greek characters, etc.) with the possibility of either an immediate or deferred translation. Polymath also makes it possible to commute from the language configured during the project creation phase thereby giving the user a way of evaluating the representation of the string before transferring it to the terminal.

Compatibility with old projects

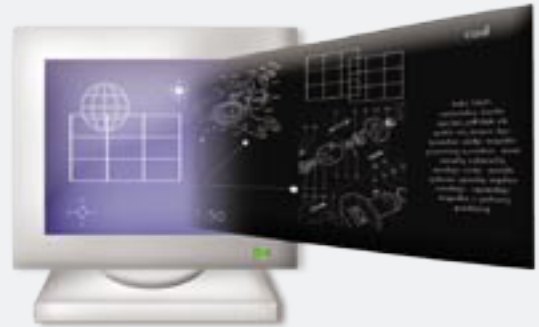
With Polymath all ESA family panels based on Windows CE can be managed; in addition, the software makes it possible to edit and compile projects created with earlier types of ESA software ESA (e.g.VTWIN), while at the same time not losing the use of the new functions that Polymath puts at the user's disposal, like Copy/Paste and User library.





DVG DXF format support

It is possible to import designs from AUTOCAD® or any other software that exports DWG or DXF formats.



Project Simulator

It is possible to simulate the project directly on the PC without transferring it onto the terminal; all the variables of the device and the correct functioning of the project can be verified without having any device connected.



Personalized keyboards

Keyboards can be personalized for data inputting in shape, colour and contents in order to be used for projects in every language (Cyrillic, Greek, German, American English, Asian languages). It is possible to save the keyboards created in the library to be used for other projects.





VTCE and IT project conversion

It is possible to convert a project developed for a VTCE terminal into a project for IT and vice versa. This allows users to save time during programming.

Multiple Component Selection

It is possible to select more than one object at the same time: thus facilitating movement within the page reducing the project development time. The common options of the selected objects are also grouped together, so they can be varied with one click.



Page object lock

This function allows users to block the position of the object on the page, avoiding accidental movements and facilitating the positioning of the other objects within the page. Using multiple selection, only the non-blocked objects will be selected.





Software Comparison Table

	Polymath Basic	Polymath Advanced
Terminal Programming		
IT	-	√
VTCE	-	√
VT	√	√
Allarms		
ISA	√	√
Recipes		
Multistructure	-	√
Multiform	√	√
Trend		
Base	√	√
Interactive	-	√
Data export		
CSV	√	√
XML	-	√
Pendrive, SD, LAN	-	√
Translation import/export		
CSV	√	√
XML	-	√
Pendrive, SD, LAN	-	√
Security		
User management	-	√
Password	√	√
Script		
VBScript	-	√
Intellisense	-	√
Macro	√	√
Script Execution	-	√
Graphics		
Object ownership	√	√
Font Windows	√	√
Personalized keyboards	-	√
Multiple Component Selection	√	√
Object Lock	√	√
Complex Controls	-	√
Object Library	√	√
Copy/Paste	√	√
Pages		
Popup	-	√
Frame	-	√
Project simulator		
Navigator	√	√
Interactive navigator	-	√
Project		
User library	-	√
Old project compatibility	√	√
Guided creation	√	√
Automatic validation	-	√
Multi-language	√	√
Project conversion		
VTCE-IT	-	√
IT-IT	-	√
VT-IT	-	√
VT-VT	√	√
Report		
Saving	-	√
Graphics	-	√
Text	√	√
Print		
Project	√	√
Runtime	√	√

Accessories and Spare Parts



Spare Parts CD

The manual provides hundreds of photographs and explanatory drawings providing repair and replacement for more common parts of the VT operator terminals. This is an extremely useful tool providing customers a considerable added value.

Spare parts manual code and description

SPARE PARTS CD	CD with Spare Parts manual and Price List in Italian and English
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PROTFILM - Protecting your display

What is PROTFILM ?

PROTFILM a 0.2 mm thick transparent PET foil that can be applied to a Touch-Screen for protective purposes: it is adhesive, treatable and removable.

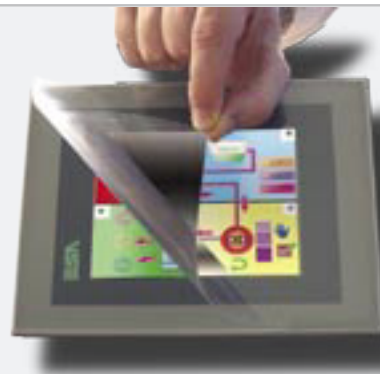
When to use PROTFILM?

When the Touch-Screen panel needs to be used in conditions where it might be damaged, in work areas typical of industrial situations.

What are the advantages of PROTFILM ?

- Total Touch-Screen protection
- Increased resistance to scratches and denting that compromise proper functioning
- Complete reliability and long life for your Touch-Screen

Kits for 4", 6", 10" and 12" displays and for 6" hand-held terminals. 5 foils per kit.





Quality and Safety are part of our DNA. In 1994 ESA was in fact one of the first Italian companies in the electrotechnical sector to be ISO 9001:1994 certified.

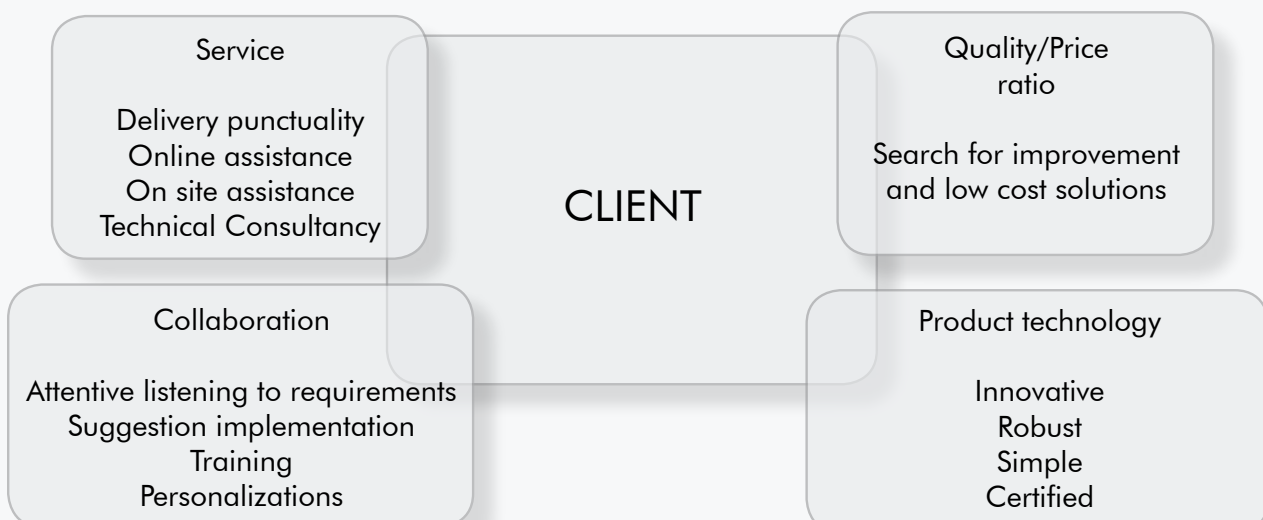
The attention to the client and to the management of company processes became consolidated in 2003 with the transfer to the ISO 9001:2000 (Vision 2000).

ESA does not consider the Quality System an aim but an essential means of giving guarantees to our clients. Improvement is therefore always pursued and carried out in every company area.

The Management periodically verifies a series of measurable indicators which help us to set more and more ambitious objectives, in particular those expected by the client.

A DSS (Decision Support System) and various data collection databases allow users to have up-to-date statistics in real time which translate into rapid and precise responses.

The Client at the centre



How does the Quality System acknowledge the 4 company values of ESA Policy?

Product technology

Both HW and SW products are developed and kept up-to-date by an R&D department which pays attention to innovation. Permanent collaboration with the Universities is a clear example of this.

MKT specifications and the Project are monitored during Design Review meetings until the validation of the product which takes place both on its release and after a few months on sale on the market.

The robustness and constructive simplicity are highly regarded and are the starting basis for the manufacture of each new product.

Product certifications such as CE-UL, ATEX, DNV; RINA etc. are prepared in keeping with the regulations.

Quality/Price Ratio

The good Quality/Price ratio comes from continuous research on various markets into the best solutions and most reliable suppliers. The suppliers, who operate according to precise specifications, are visited, periodically evaluated and urged to improve continuously.

Collaboration

Listening to and collecting clients' requirements is of fundamental importance for company growth and client loyalty. The client has the opportunity to write any complaints, suggestions or opinions for any reason directly to the ESA site, certain of receiving a reply in a short time.

Service

The punctuality of delivery originates from a suitable management of suppliers and their qualitative performance. On line assistance is integrated in a modern CRM (Customer Relationship Management) system that allows for rapid consultations of any information regarding the client.

Customer Care

- High level of expertise
- Many years of experience
- Rapid response to customer needs and questions
- Completely free service
- Test laboratory
- Software and hardware testing



www.esahmi.com

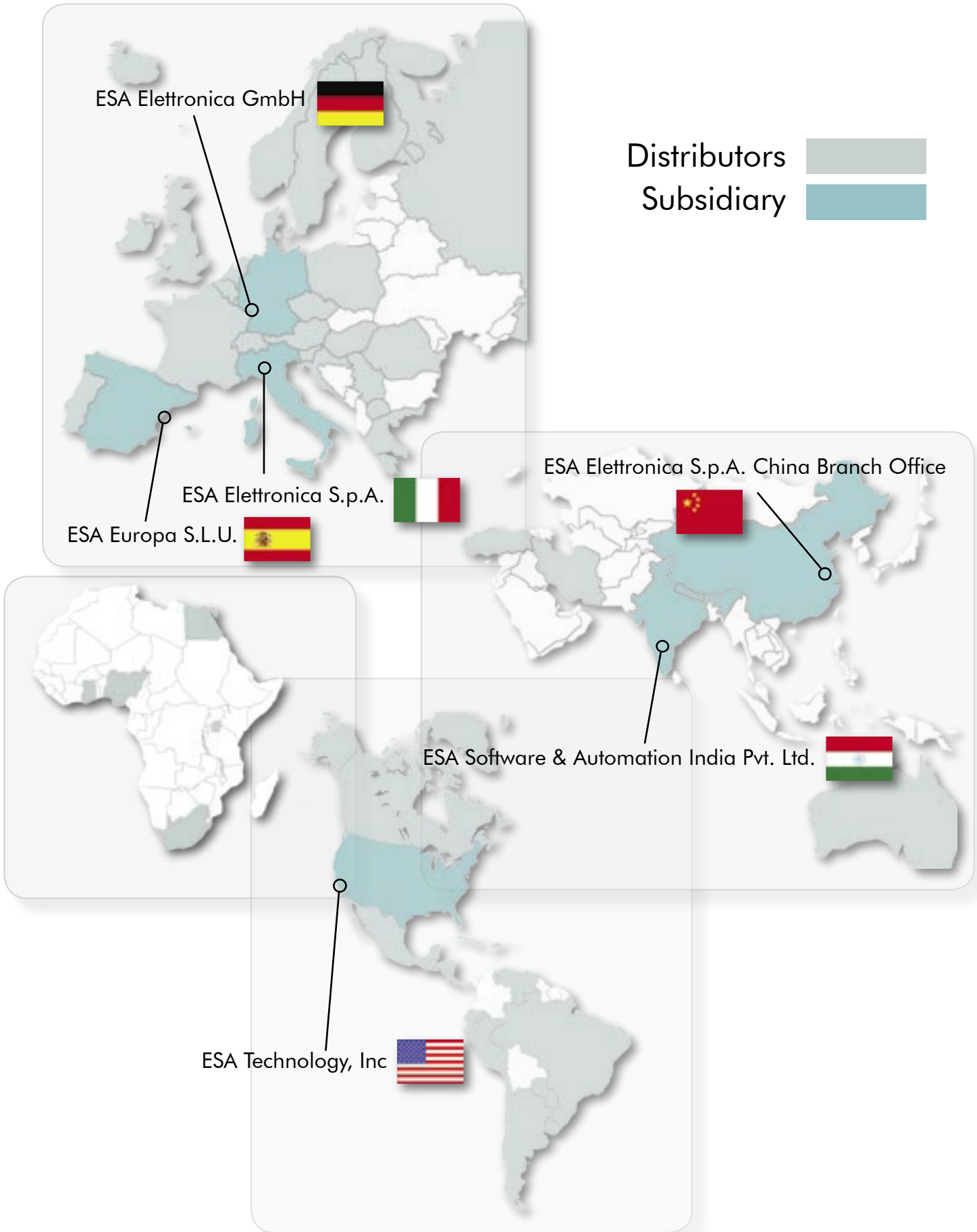
The use of new channels of communication, like Internet and the web-site, allow us to be in closer touch with customers, making it easier to offer them timely information and up-to-date news.



Training courses

- Highly qualified trainers
- Basic courses
- Advanced courses
- Practical tests on PCs, terminals and PLCs

ESA in the World



Mission: "Putting greater control in your hands"

Making processes simple, safe and more productive.

Extending man's capacity through control, offering him the greatest amount of easily manageable information in order to increase his capacity of interaction.

ESA: a summary of the company

Born in 1975 as System Integrator, during the years '85 to '90 we decided to change course by entering into the growing market of operating panels.

An active, constantly growing company, with 6 sites and 40 distributors in the world, which in over 30 years of activity has always closed its balance with a profit with a turnover which was at first predominantly national and now also has a consistent (greater than 50%) foreign share.

Thanks to a products appreciated above all by packaging, food & beverage, textile and automotive industries, we have been competing successfully with the best players in the field of automation for a long time and this is thanks to our clients who have continued to be loyal to our brand for years.

The research and development is located throughout the world: this is a precise choice to offer a universal product, which has come about from the convergence of different cultures which share intuitions, needs and different technologies. A constant process of development and improvement in which we have always believed and which has encouraged us to invest, collaborating with the world of university in technological research as well as in the more concrete industrial world.

ESA: point of reference in HMI

Confident in technological progress, for 15 years we have been devoting ourselves to the research and development of new, ever more well-performing products with the right alliance between progress and demand and to offer proposals which are innovative as well as useful and satisfying.

It is for this reason that today we are considered professionals and specialists in the sector proudly boasting about our very large range.



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