



AUTOMATION

Connect ideas. Shape solutions.

CATALOG



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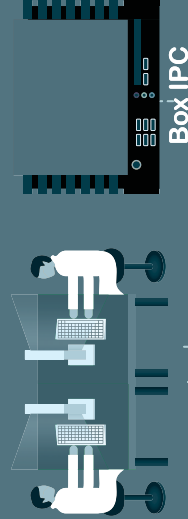
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## The Heart of Automation and The Art of Innovation

The face of industrial automation is transforming and by making your job easier and ensuring a better future for our industry, ESA Automation remains one of the primary driving forces in this positive change.

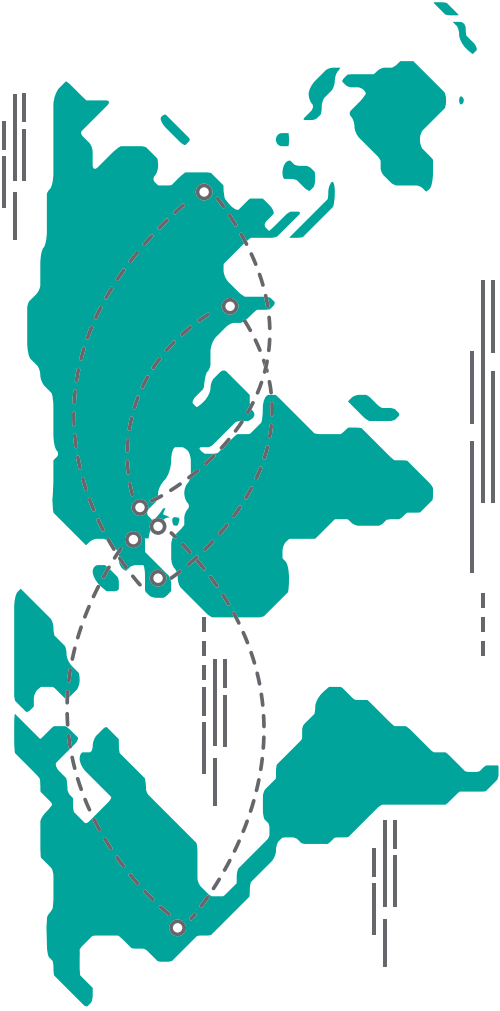
For ESA Automation, sustainability and technology can not only coexist, but they can merge, contribute to each other and evolve into something better. We create solutions, not just products, Innovation that will optimize every process, according to our values of dynamism, flexibility and openness.

At ESA Automation, we believe in a boundaryless organization, where technology helps you achieve any goal, with this aim in mind, we develop autonomous, open solutions that require minimum input and that reflect the pioneering principles of the Industry 4.0.

We've been working hard to simplify your job with well-designed, smart products, in line with the Internet of Things (IoT) and the Internet of Services (IoS) principles. Products that offer state-of-the-art technology for the best value for money with professional customer care service and on time worldwide delivery.

## Overview

Smart Tech. Ease of Use.



## Borderless innovation Join our international community

Since starting our activities in 1975, ESA Automation has maintained its goal: to provide innovative solutions for industrial automation. Today, we have grown to become a multinational and multicultural ethical company with branches in seven countries, and our mission belief is stronger than ever. We have created an international community, with clients, suppliers, researchers, engineers

and stakeholders that share the same passion for innovation and an outstanding ability to create value. We have satisfied industries ever demanding needs for better solutions by expanding and developing into new fields. Together we can work to create a new and better approach to production and industrial automation, and create sustainability through efficiency.



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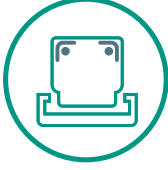
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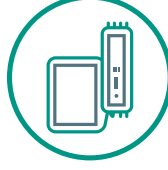
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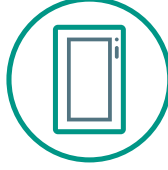
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**Make your experience more interactive.**

Explore the world of ESA Automation



## CREW Our platform. Your touch.

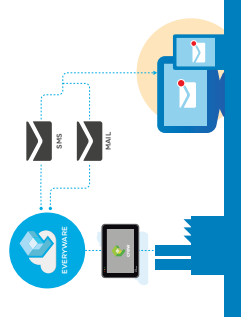
Crew is the innovative Esaware software SCADA that allows you to program any HMI or PC. The Crew suite consists of an intuitive editor with a modern look and feel, and the Runtime component is completely cross-platform. In fact, the Runtime can be displayed both on embedded and open platforms, such as any PC. But Crew is even more versatile: you can also display project pages on mobile devices like smartphones or tablets, thanks to full compatibility with HTML5 technology.

Crew is compatible with the following operating systems:

- Windows XP Pro Service Pack 3
- Windows 7 all versions (32/64 bit)
- Windows 8.1 all versions (32/64 bit)
- Windows 10 all versions (32/64 bit)

### SMS and Email

With Crew, you can easily send SMSs and emails for any event occurred in Runtime so that you can always be updated in real time on what happens in your production plant. Users can configure the SMS and email notifications very easily just by adding the email addresses and mobile numbers. Crew allows you to differentiate recipients as addressee, cc or bcc, just like any other email service software, and it is also possible to send emails and SMSs to users that are not listed in the project. The notification system is managed by our Esaware infrastructure through an encrypted connection, for your peace of mind.



### Crew responds to your gestures

Crew Runtime works perfectly with multi-touch applications by quickly adapting and responding to ordinary commands. Details of the project can be navigated and edited with common multi-touch gestures such as “Pinch”, “Scroll” and “Swipe” - some of which work even on resistive touch screens - allowing you to zoom in and interact with your project. A unique feature on the industrial automation market. Finally, Crew offers advanced users management options, such as a graphical password system and powerful tools to archive any data.



### Crew puts safety first

Crew Runtime conforms to the FDA directives, including the CFR21-part 11 about Food and Drugs, and make it very easy to develop applications in compliance with these regulations. Users can also trace, record and authorize all Runtime activities, for example using an electronic signature.



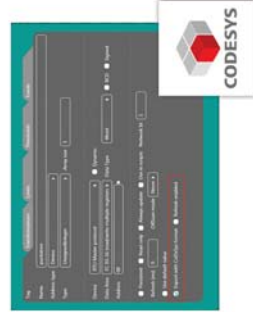
### Crew is also App

Crew Apps have been designed to control your plants from any mobile device, such as smartphones and tablets with Android or Windows Phone operating system. Our native app works with a one-hand free logic and together with the read only and editing mode, it makes the usage of any smartphone or tablet much easier.



### Bridge functionality for better integration with CODESYS SoftPLC

Crew is the first SCADA to have introduced the bridge functionality in industrial automation. We have increased the integration between Crew Runtime and the CODESYS SoftPLC, enabling communication with any device included in Crew drivers list.



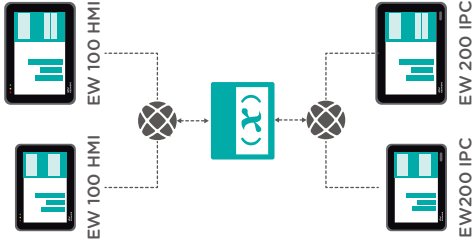
### Dynamic filters in Runtime

By long-pressing with your finger on the column heading of any view, you can add a dynamic content search filter in an easy and intuitive way. This functionality is very important for maintenance departments. You can find this kind of filters in the Alarm Viewer, Datalog Viewer, Recipe Viewer and the User Viewer.



### HMI and IPC network project

Create your own network of HMIs and IPCs with a Master/Slave architecture, in order to share all variables and data through a network among all connected devices.

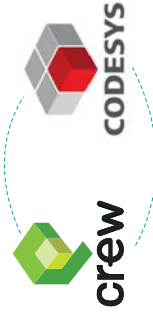


### Data structure management and array of TwinCAT

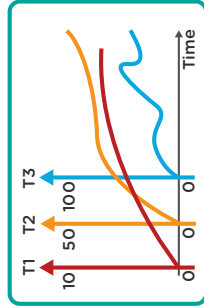
Crew lets you manage and import structures and arrays for TwinCAT protocol and CODESYS. Therefore, you can create project variables that point to the elements of the structure.

### Crew and CODESYS

Crew and CODESYS are strictly integrated. It is possible to share in automatic mode all the tags that come from CODESYS projects. Crew also allows you to download and create a backup of the application without the CODESYS editor.



HMI / PC



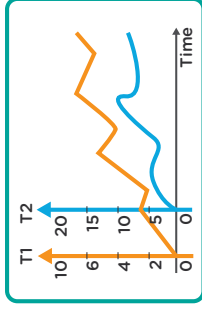
### Visualization and comparison of historical trends in Runtime

Once exported trends from Runtime viewing, it is possible importing them again and making comparisons between different historical traces captured in different intervals.

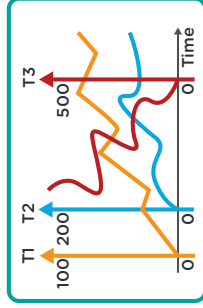
### Multi-scale visualization on objects trends in Runtime

For an easy consultation, it is possible viewing at the same time the scales of different pens acquired in trends viewing. It is also possible to have directly automatic adjustment of scales.

HMI / PC



HMI / PC

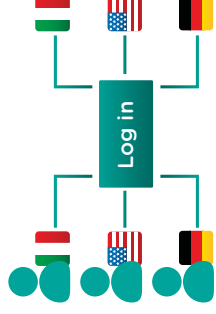


### Management of multi scale position on trend objects

For an easy readability it is possible to decide the scale position of each pen inside the trend viewing.

### User language

With Crew you have the possibilities to relate the visualization language to the logged user. With this functionalities is very easy to manage a different users with different language.



online simulation



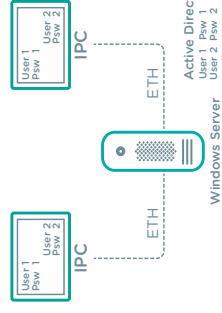
### Simulation

With Crew is possible to simulate your project and your application without driver. Inside we have integrated for you a Simulation Offline and Simulation Online functionalities.

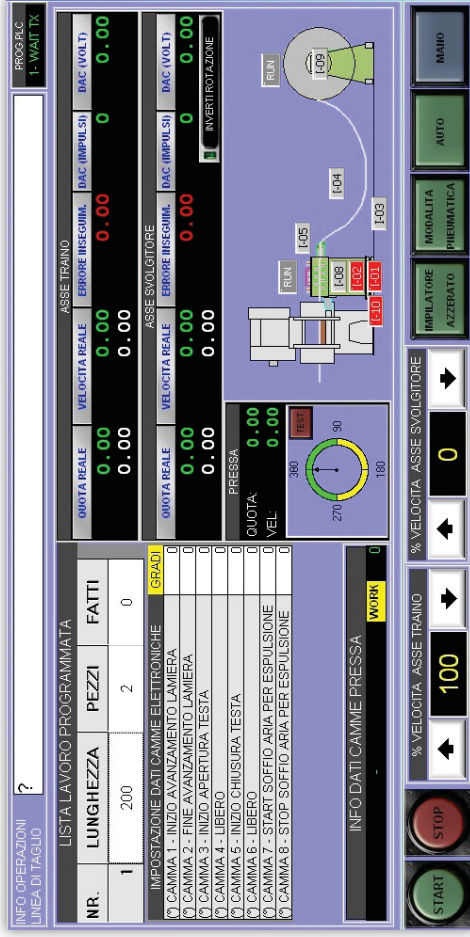


### Users from Windows

If your project is inside of the domain network, you are able to import the Users of the project directly from Active Directory of Windows.







## CNC & MOTION SOLUTIONS

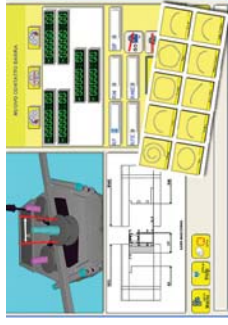
### e-motion technology

ESA Automation presents the most comprehensive range of “ALL IN ONE” PAC controllers and includes bright high definition touch screens from 4.3” up to the impressive 15”. Discover the potential in our renowned PLC, HMI, CNC, Motion Control and IT server, in one powerful device with the number of I/O and Axis easily increased using our CAN Open expansion boards. Realise the huge advantages of writing a SINGLE APPLICATION that incorporates PLC, CNC and HMI functions. We produce standard ISO (G code) CNC solutions for machining wood, glass, stone, ceramics, plastic, and other materials.

ESA has the right solution to improve your machine.

The ESA Automation Application Engineering Service and “Turnkey” customer oriented solutions.

We offer a complete customer oriented automation “Turnkey” solution, including HMI, CNC, PLC and SCADA application development, debug, simulation, and full training of you engineers. Moreover, we provide onsite final testing on the customer’s plant or on the end user plant. Possibility to have customized applications.



For many years we have developed complete machine applications for numerous industrial fields, including:

**Machine tools for metal working**

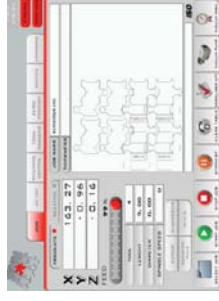
**Tube bending machines**

For this particular machine we have developed one of the most complete control solution, based on macro user-friendly programming cycles, for single or multiple working machines.

**Band saws cutting machines**  
we have different applications for these machines, from a basic solution with keyboard and display, to the big touch screen based four axis machine motion and PLC control.

**Screwing machine**

we have developed a machine center for working on iron bars, that can provide all kinds of drilling, screwing and milling thanks to a wizard macro programming tool.



## MACHINE TOOLS FOR WORKING SHEETS

**Laser, water jet and plasma cutting**

The complete solution, up to four axis, with integrated standard or gantry axis management, for all Cartesian robots for metal sheet (but also stone, plastic, rubber, paper) cutting and engraving. ISO (G code) interface that can be easily adapted to all the CAD CAM you may need by our post processor making service. Moreover, a lot of scalable tools like DXF to Macro and DXF to ISO generators can be added to the application.

**Press brakes**

Like all the other applications, our Press brake application is easy to use and guides you through the making of all your pieces. A flexible graphic editor will guide you through the entire metal sheet manipulating process.

**Cutting, pressing, profiling and straightener metal sheet lines**  
A completely configurable metal sheet working all-in-one application that includes PLC and Motion control.



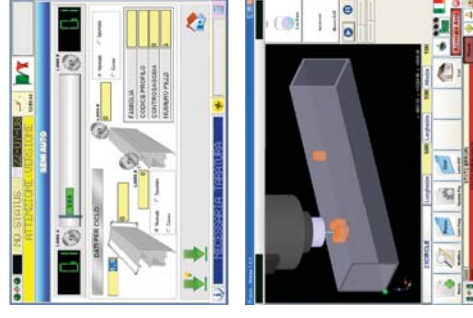
## MACHINE TOOLS FOR ALU & PVC WINDOWS PROFILES AND SECTIONS

**Cutting single or double head machines application**

The ESA Automation PVC and ALU profiles cutting single or double head machines application synthesizes twenty years of experience. It is our most complete application, including profiles typology management, profiles cutting formulas, importing and exporting tools for the most important windows cad drawing tools.

**Alu profiles machine centers**

The 3D simulation tool opens different scenarios of machining programming, as you can decide to work starting from a Macro, from a DXF drawing, from a Macro generated by a DXF drawing, or simply connecting it to an external CAD CAM. Inputs and outputs of the SoftPLC can be configured on a page protected by a password. Moreover, a good oscilloscope function allows you to trigger and to follow the behavior of all axis variables.



## Wood Working Machines

### Wood windows profiles machine centers

The wood profile machine center applications by ESA Automation include several machines, from the simplest 3 axis standard wood engraving doors and windows profiles machine centers to the most complete producing line, up to 50 Axes or more.

### Panel machining centers

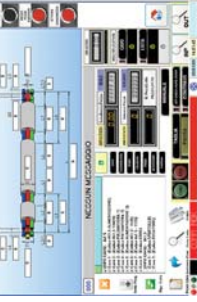
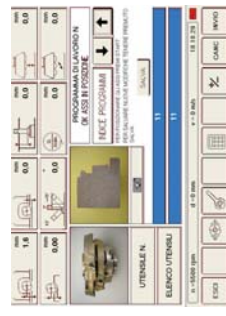
You can count on several Cad cam solutions, in order to draw directly on the CNC application the shape you want to engrave, generating directly ISO (G code), together with the availability of Macro programming or using our DXF to ISO and DXF to Macro scalable tools.

### Spindle molder and circular saw solutions

We work for the most important machines producers in the world and we offer a complete range of scalable hardware and software solutions with the best value for money. Our solutions are ready to manage radio controlled registers and tools changing systems.

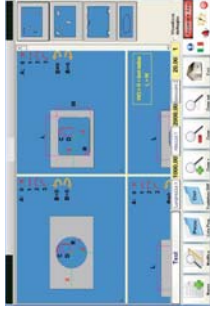
### Edgebander machines

For these machines, we offer a dedicated hardware and software solution. All the applications are fully configurable, with the possibility to scale the machine layout, activating or deactivating all the edge working groups. We can manage both motorized and pneumatic groups, and the application fully controls the temperature of the gluing groups.



## Cables and wires working machines

The ESA Automation application for working cables machines is a very powerful control software that can completely manage a 4 axis controlled machine, with a motorized blades group or a pneumatic controlled one. The application can also manage the raw cables and wires database, in order to assign a wiring working order with different kinds of wires and cables. The application supports all the most diffused inkjet fast printers. The working order can be sent by net and web, and can be imported from XLS files. A user-friendly interface allows you to program and configure the order list very quickly.



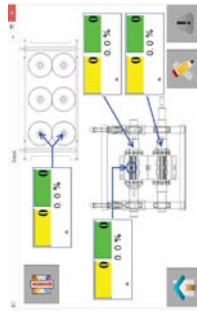
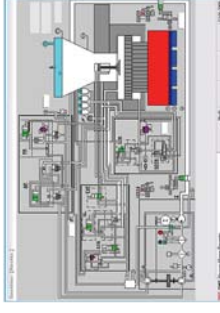
## Glass vertical and horizontal machine centers

The application includes a rich endowment of macros that automatically includes all the “pre-process” necessary to prepare the glass sheet for the final working, without the risk of breaking it. The application can be connected to different CAD CAMs and can be easily configured for different sizes of machine. Finally, it can also support different layouts of axis configuration.



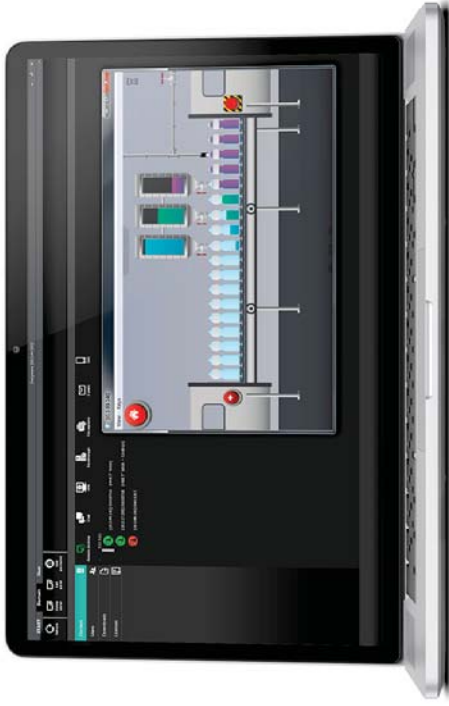
## Ceramic plates processing plants

Our solution for the tiles production line and press control has been chosen by the main players of this market. It includes the management of the entire production cycle, from the dust dosing on the dies, to the continuous parallelism control and the precise expulsion of the tiles.



## Packaging machines

The ESA Automation flow pack 3 - 5 axis electronic cams based application can manage different machine sizes and layouts. From the standard flow pack with rotating sealing group to the translating one, the app can manage several sealing processing options, as “no product, no bag” or “no phase, no seal”. The sealing group temperatures are controlled by the application, and the motor can be driven by digital field buses or by analog or step + dir outputs. Different brands of “on line” inkjet printers are available on the configuration pages, as well as various options in the machine phasing of the electronic cams.

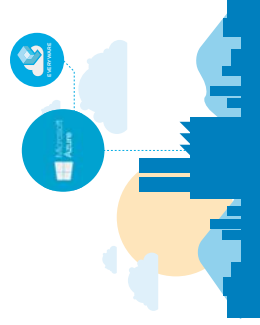


## Everyware Control beyond distance

Thanks to the Everyware remote maintenance platform, you can safely control your applications wherever they are. This innovative remote maintenance package eliminates any distance and border between users and their production plants. Without any additional hardware or configuration, you can access, control and modify your system just by using a common internet connection. Everyware starts an encrypted connection between two clients ensuring the system security and giving access to all devices on that system. And if you are in the private network, you can use the Everyware services without any cost.

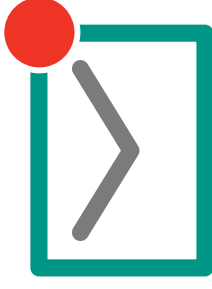
### Everyware is on Cloud

Everyware remote maintenance platform is on the Microsoft Azure Cloud infrastructure, offering wider connectivity and reachability.



### SMS and email notifications

Everyware manages for you all SMS and email notifications configured on CREW, making it extremely easy, in fact, you only have to add mail addresses and mobile numbers, forgetting about all the rest. Thanks to Everyware infrastructure, your SMS will be sent all over the world at the same cost. You have also the possibility to enable and disable SMS and email notification for each single device or for a folder.



### Chat in real time

Thanks to our chat service you are able to cut expensive long-distance phone calls and to follow your customers step by step. Chat history is also available: this way, you can open an old chat transcript that contains maintenance instructions. All language character sets are available in our chat service.



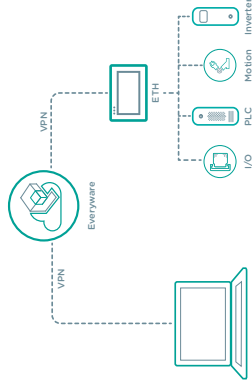
### Work in complete safety

Thanks to an encrypted VPN connection based on the TLS1.2 algorithm, your connection with the Everyware infrastructure is protected from any system intrusion attempt, even when you send the SMSs and emails. This is very important to keep your data safe.



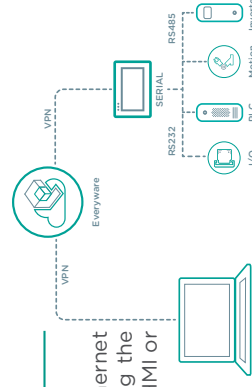
### Access to any network and subnetwork in the plant

Through an encrypted VPN connection between the tele-assistance PC and the devices, you are able to download, debug and upload the application that runs inside. This guarantees total accessibility to all devices installed in the plant.



### Access to serial devices

Thanks to the virtualization of the serial port inside Ethernet connections, you are able to download, upload and debug the applications that runs in a serial device connected to our HMI or PC.

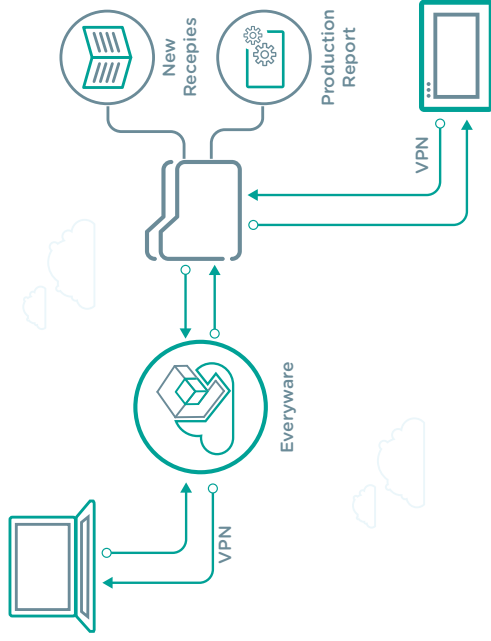




# Everyware

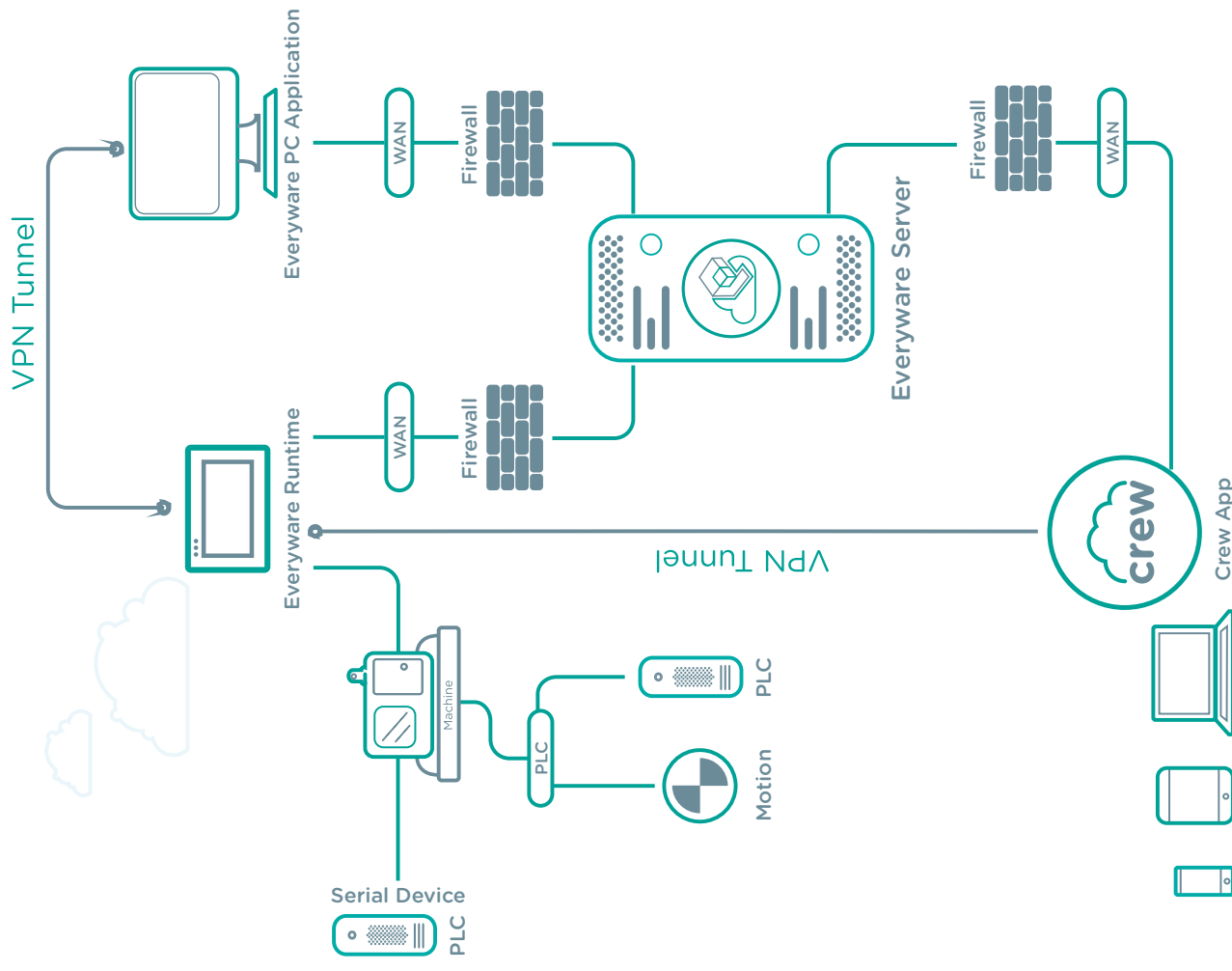
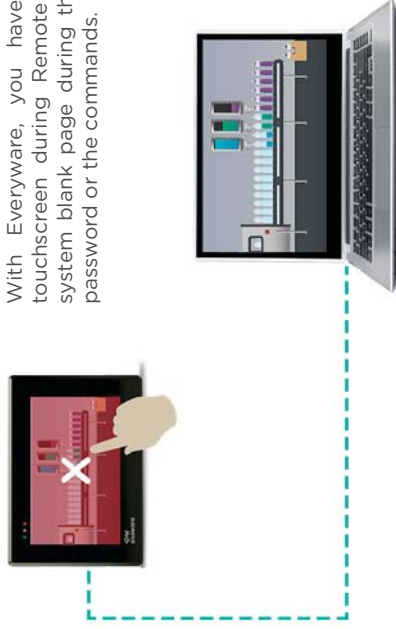
## Share files and folders directly with a remote device

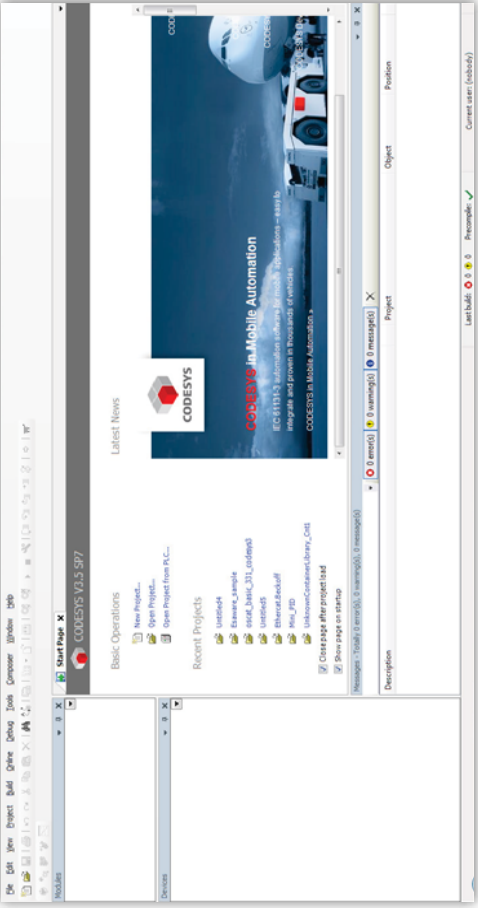
Through a standard FTP service, you have the possibility to share all kind of data between the tele-assistance PC and remote devices.



## Remote interaction

With Everyware, you have the possibility to disable the touchscreen during Remote Desktop sessions or to show a system blank page during the session in order to protect the password or the commands.





# CODESYS

The most recognized and comprehensive IEC 61131-3 development environment for programming Industrial Controllers. ESA's seamless integration between CODESYS and Crew enables "one click" sharing of all project information; this time-saving function includes the ability to use CODESYS tags directly in Crew. The combination of CODESYS runtime and EtherCAT Master provides the optimized solution for any local or distributed PLC application.

The following functions and languages are supported :

- Ladder diagram
- Structured text
- Sequential function chart
- Continuous function chart
- Function block diagram
- Integrated visualisation
- Trace functions
- Offline simulation

All programming languages can be used in combination with one another

Simultaneous conversions possible

All standard data types:

BYTE, WORD, DWORD, SINT, USINT, INT, UINT, DINT

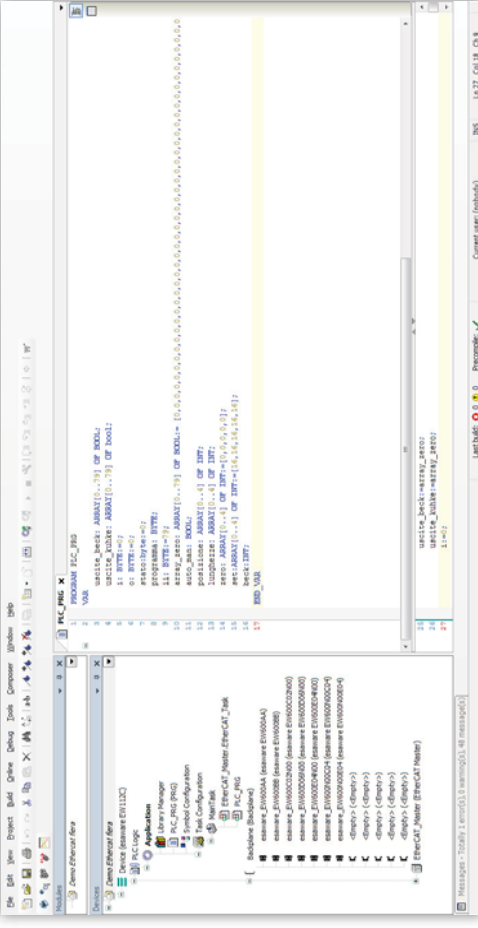
Symbolic operands with no length restriction

Context-sensitive help functions

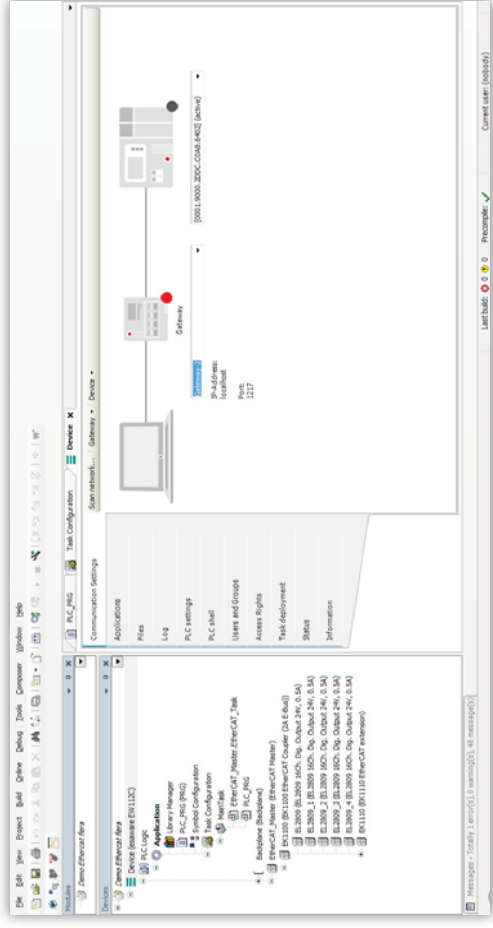
Global search and replace

Disc space check prior to download

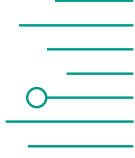
Unlimited number of function parameters



Thanks to CODESYS development tool it is possible programming through to the structured language.



Simple interaction with project hardware configuration to go on line with different present partners.





## Esaware HMI Control made easy

EW100 is the new generation of HMIs based on a modern, powerful architecture that combines visualization, supervision and control of your applications.

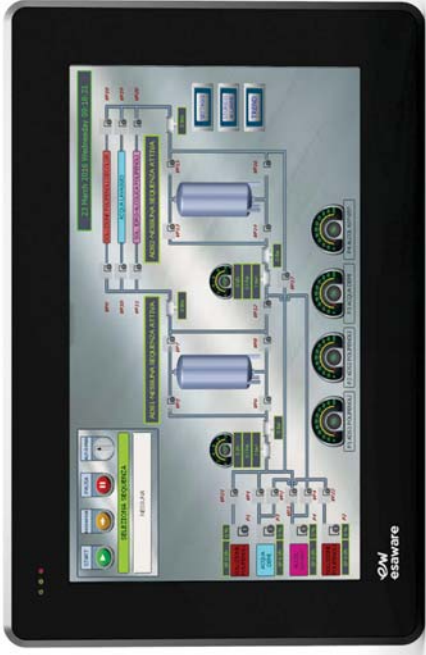
Esaware HMI products fully exploit the potential of the Windows Embedded Compact 7 operating system, the only solution that offers transparent interconnection with any company system together with the well-known reliability of the embedded operating systems.



Our Esaware HMI solutions have a widescreen display that can be dimmed up to 100%, and they offer up to 40% more viewing surface compared to a traditional 4:3 display. In addition LED backlight displays excel in durability thanks to a significant energy saving.



In Esaware HMI, esthetics and functionality become one, thanks to the innovative design "Twist": an inclined surface that prevents the retention of dust and other corrosive substances. Safety and durability are further enhanced by a robust aluminum case with PTFE, non-stick, coating.



Our standard HMI for visualization, control with Remote Maintenance Platform.

- Operating System Windows Embedded Compact 7 Pro
- Preloaded Everyware runtime
- SNMP Server and Client
- Aluminum Front Side PTFE coating
- True Flat Touch Screen
- Status leds on front
- CPU Arm Cortex A8 1 GHz
- Ram DDR3
- Internal Memory 3 Gbyte
- SDHC v2.0 (up to 25 Mbyte/s)
- High Bright 16 Millions Colors Display

Features	EW104AA	EW107AA	EW112AA	EW115AA
Display Size	4,3"	7"	12,1"	15,6"
Display Technology			TFT	
Display Colors	262k		16M	
Display Backlight			LED	
Display Brightness (cd/m²)	400	600	400	300
Display Resolution (pixel)	480 x 272	800 x 480	1280 x 800	1366 x 768
Backlight life (hours)			50k	
Processor			ARM Cortex A8	
RAM		256 MB DDR3		512 MB DDR3
Flash			3GB	
Serial Ports		SPI RS232/485-MPI-COM0 ; SP2 RS232/485-MPI-COM0 ; CAN ; Profibus		
Ethernet			2 x 10/100Mb	
USB Ports		1 x USB Host + 1 x USB Device		2 x USB Host + 1 x USB Device
Cardbus Slot			1 x SDHC/MMC	
Power Supply (Vdc)			12 - 32	
Consumption (W)	4	7	15	19
Operating Temperature (°C)		-10 ... + 50 (non condensing)		
Storage Temperature (°C)			-20 ... + 65	
Humidity			<90% (non condensing)	
External dimensions (W/H/D) (mm)	166 x 112 x 46 (61 with double port)	202 x 142 x 46	341 x 239 x 49	437 x 286 x 54,5
Cut-out dimensions (W/H) (mm)	158,5 x 104,5	195,0 x 135,0	326,0 x 227,0	422,5 x 271,5
Weight (kg)	0,5	0,8	2,5	4,5
Protection degree (front)			IP66	
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / UL1675 (Certificate no. EB99179) / EAC / Directive 94/9/EC -AteX Group II - Category 3 G-D Zone 2/22			



IP 69K



## Stainless steel HMI Extreme durability. High endurance.

The 7" IT107W and 12" IT112 with AISI 304/V2A stainless steel bezel and TRUE-FLAT touch screen make cleaning quick, easy and effective.

Thanks to the front bezel's very high degree of protection, IP69K according to ISO EN 20653, these HMIs offer excellent chemical resistance to highly corrosive substances (such as cleaning chemicals, alkaline substances, etc...) and safeguards against frequent washing at high pressure, such as is normal in the food, pharmaceutical and chemical industries.

The large outside edge radius of curvature on the bezel (4 times the minimum required by law) prevents deposition and contamination of bacteria or microbes on the front. In addition, the front panel complies with DIN EN1672-2, EHEDG guideline and FDA requirements in the food, pharmaceutical and chemical.

The stainless steel HMIs are equipped with industrial displays and high brightness White LED backlight, touch screen technology with 4 or 5 wires that ensures optimal functionality even with superficial damage on the surface.

The stainless steel HMIs, in addition to CE compliance are certified ATEX (Zone 2/22, category 3 G / D), ensuring total security and protection of the system.



Features

IT107 Wide

IT112

Display Size	7"	12.1"
Display Technology		TFT
Display Colors		65k
Backlight life (hours)		50k
Display Backlight		LED
Display Resolution (pixel)	800 x 480	800 x 600
CPU		Intel PXA 270
RAM	64MB	128MB
Flash	32MB	64MB
Serial Ports		SPI (232/485/MPI), SP2 (RS-232/485/MPI), CAN, Profibus-DP, ProfiNet
USB port Host	1 x v.1.1	2 x v.1.1
USB port Device	1 x v.1.1	1 x v.1.1
CardBus Slot		1 x Secure Digital
Compact Flash Slot		1 x CompactFlash
Ethernet	1 x 10/100 Mb	2 x 10/100 Mb
Hardware Clock		Supercapacitor 72h
Power supply (Vdc)		18 - 32
Consumption (W)	8	15
Operating Temperature (°C)		0 ... + 50 (non condensing)
Storage Temperature (°C)		-20 ... + 65
Humidity		<85% (non condensing)
External dimensions (W/H/D) (mm)	202 x 142 x 39.2 (SPT) / 202 x 142 x 58.2 (SPI-SP2)	336.3 x 256 x 62.9
Cut-out dimensions (W/H) (mm)	194 x 134	314 x 240
Weight (kg)	- 2.2	- 4.6
Protection degree (front)		IP 69K
Certifications	CE, ATEX (Group II - cat.3 G D - zone 2/22), Vibration EN60068-2-6, Shock EN60068-2-27, Humidity EN60068-2-30	

- Stainless steel HMIs are equipped with:
- SPI serial port (RS232 / RS485 with integrated MPI)
  - USB port (type of device) for programming the terminal
  - COM0 port (RS-232), USB port (host type) for connecting peripheral devices (headboards and mouse), for easy import/export data on USB key and printing reports
  - Serial port SP2 (RS232 / RS485 with integrated MPI), CAN, Profibus-DP or ProfiNet
  - Ethernet Port 10/100 Mbit
  - Slot for Secure Digital and MultiMedia Card (MMC)
  - Second slot for Compact Flash memory
  - Extended power supply range 18..32 Vdc and extremely low power consumption
  - Powered by Polymath





## SmartClick HMI

### Best cost-to-benefit ratio

ESA Automation presents an entry-level HMI solution. SC series is equipped with ABS plastic chassis that guarantees great sturdiness and durability. SC HMIs are available in different sizes 3.5" (SC103), 7" (SC107 and SC207) and 10.1" (SC110 and SC210). All wide displays with white LED back-lighting and TRUE-FLAT Touch screen. Advanced technology combined with wide connectivity.

## SmartClick Software



SmartClick is the software package for configuring SC operator panels. The enhanced features allow for the management of data structures, such as Recipes,



Trends, Data Logs, active and historical alarms and User management in a quick and intuitive manner.

SC series is equipped with

- Ethernet port for programming and communication with the field
- A dual RS232/RS485 serial port with COM0 port functionality, the ESA's OPEN serial port enables communication with any kind of custom solution

SmartClick incorporates advanced functionalities including:

- Rich object library
- Level project page management
- Importing/exporting project data
- Transferring stored data
- Project back-up and restore
- VB script with intelligence
- OFF-LINE and ON-LINE simulator
- Dictionary
- Automatic project storage
- Indirect addressing

Features SC103 SC107 SC207 SC110 SC210

Display Size	3.5" Wide	7" Wide	10.1"
Display Technology	TFT		
Display Colors	65.536		
Display Backlight	LED		
Display Resolution (pixel)	480 x 272	800 x 480	1024 x 600
Backlight life (hours)	30k		
Processor	ARM		
RAM	64 MB	32 MB	64 MB
Flash	64 MB	64 MB	64 MB
First serial port	Port 1 (RS232/RS485/COM0)	Port 1 (RS232/RS485/MP1)	Port 1 (RS232/RS485/COM0)
Second serial port	Port 2 (RS232/RS485/COM0)	Port 2 (RS232/RS485/COM0)	Port 2 (RS232/RS485/COM0)
USB Host port	1 x v 1.1		
USB Device port	1 x v 1.1		
Cardbus Slot	1 x Secure Digital/MMC		
Ethernet	1 x 10/100 Mb		
Chassis	ABS Plastic		
Hardware clock	Yes		
Clock battery	Battery (minimum durability 5 years)		
Power Supply (Vdc)	Supercapacitor 72h		
Consumption (W)	3	5	8
Operating Temperature (°C)	-10 ... +50 (non condensing)		
Storage Temperature (°C)	-20 ... +65		
Humidity	<85% (non condensing)		
External dimensions (W/H/D) (mm)	113 x 74 x 44.2	198.8 x 137.8 x 40.3	280 x 190 x 37.5
Cut-out dimensions (W/H) (mm)	105 x 66	190.2 x 129.2	194 x 134
Weight (kg)	-0.3	-0.8	-1
Protection degree (front)	IP 65		
Certification	CE		



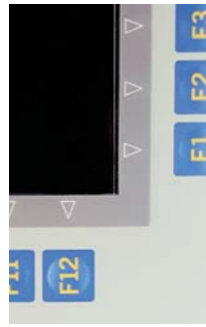
## Keyboard HMI

Don't touch, just press my keys.

ESA Automation offers the IT series with keyboard.

For applications where direct tactile keyboard input is preferred to a touchscreen keyboard, the IT105TK is perfect. The HMI has a bright 5,7" TFT display with white LED backlight. IP66 protection on the front bezel and comprehensive communication options makes the IT105TK the obvious choice for all your harsh environments.

IT105TK is a terminal with 5,7" TFT Display, resolution 320x240, 65,536 colors.



Each of the function keys available can be configured to suit different projects.

The device memory can be expanded with a SD card. Historic files created in runtime can also be saved.



### Features

### IT105TK

Display Size	5,7"
Display Technology	Graphic LCD TFT
Display Colors	65,536
Display Backlight	LED
Display Resolution (pixel)	320 x 240
Backlight life (hours)	50k
Operative keys	18
Function keys	12
Alphanumeric keys	11
Processor	Intel (R) PXA270
RAM (MB)	64
Flash (MB)	32
First port	SP1 (232/485/MPI)
Second port	SP2 (RS232/485/MPI), CAN, Profibus-DP
Ethernet	1 x 10/100 Mb
USB Host port	USB 1.1
USB Device port	USB 1.1
Cardbus Slot	Secure Digital / MMC
Power supply (Vdc)	18 - 32
Consumption (W)	- 10
Operating Temperature (°C)	0 ... +50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/D/H) (mm)	261,2 x 172,4 x 51,6 (70,6 with double port)
Cut-out dimensions (W/H) (mm)	243,5 x 147
Hardware clock	Supercapacitor 72h
Weight (kg)	- 1,5
Protection degree (front)	IP66
Certifications	CE, cULus, ATEX zona II cat. 3 G/D, DNV, Vibration EN60068-2-6, Shock EN60068-2-27, Humidity EN60068-2-3



## Text HMI

### Evergreen solutions for durable control

Where a simple text based operator instructions and hardkey input is favoured, ESA Automation has the answer: Text HMI offers cost effective but powerful user/machine interaction with surprising clarity.

These are some features available on text HMIs:

- Applications quickly executed
- Alarms, passwords, recipes
- Mathematical functions
- Two drivers run simultaneously
- Serial or parallel printing
- Integrated Profibus-DP and CAN
- Keyboard input/selection
- Powered by Polymath



**VT50**  
HMI with text LCD display, 2 rows by 20 characters, 256 KB project, 8 operative keys (5 function keys). Available also with CAN interface.

**VT150**  
HMI with text LCD display, 4 rows by 20 characters, 256 KB project, 25 operative keys (5+5 customizable function keys). Available with Profibus-DP network or with CAN interface.

**VT60**  
HMI with text LCD display, 4 rows by 20 characters, 256 KB project, 6 operative keys (4 function keys). Available also with CAN interface.

**VT160**  
HMI with text LCD display, 4 rows by 20 characters, 256 KB project, 25 operative keys (5+5 customizable function keys). Available with Profibus-DP network.

**VT170**  
HMI with text LCD display, 4 rows by 20 characters, 320 KB project, clock, 32 KB recipes, 36 operative keys (12 customizable function keys).

Features	VT050	VT060	VT150	VT160	VT170
Display Type	Text LCD	Text LCD	Text LCD	Text LCD	Text LCD
Display Backlight	LED	LED	LED	LED	LED
Columns by Rows (text)	20 x 2	20 x 4	20 x 4	20 x 4	20 x 4
Display area size (mm h-v)	73.5 x 115	70.4 x 208	70.4 x 208	70.4 x 208	70.4 x 208
Text character Matrix (pixels h-v)	5 x 7	5 x 7	5 x 7	5 x 7	5 x 7
Character dimensions (mm h-v)	3.2 x 5.5	2.95 x 4.75	2.95 x 4.75	2.95 x 4.75	2.95 x 4.75
Contrast adjustment	Trimmer	Trimmer	Trimmer	Trimmer	Trimmer
Character set	Ascii, katakana	Ascii, katakana	Ascii, katakana	Ascii, katakana	Ascii, katakana
Project Memory (bytes)	256K	256K	256K	256K	320K
Recipes/Alarm buffer (bytes)	-	-	-	-	32K/8K RAM
MSP serial port	RS-232/422/485/TTY 20 mA	RS-232/422/485/TTY 20 mA	RS-232/422/485/TTY 20 mA	RS-232/422/485/TTY 20 mA	RS-232 (9 pin)
ASP serial port	-	-	Yes	Integrated	-
Connection with optional keyboard	-	-	Yes	Integrated	-
Integrated network (optional)	CAN	CAN	CAN, Profibus-DP	Profibus-DP	Profibus-DP
Optional	Profibus-DP, Interbus-S, CAN	Profibus-DP, Interbus-S, CAN	Profibus-DP, Interbus-S, CAN	Profibus-DP, Interbus-S, CAN	Profibus-DP, Interbus-S, CAN
ESA-Net (variables)	Client	Client	Client	Client	Server (128), Client
Power supply (Vdc)	18 - 32	18 - 32	18 - 32	18 - 32	18 - 32
Consumption (W)	5	5	15	15	9
Operating temperature (°C)	0 ... +50 (non condensing)	0 ... +50 (non condensing)	0 ... +50 (non condensing)	0 ... +50 (non condensing)	0 ... +50 (non condensing)
Storage temperature (°C)	-20 ... +60 (non condensing)	-20 ... +60 (non condensing)	-20 ... +60 (non condensing)	-20 ... +60 (non condensing)	-20 ... +60 (non condensing)
Humidity	<85% (non condensing)	<85% (non condensing)	<85% (non condensing)	<85% (non condensing)	<85% (non condensing)
External dimensions (W/H/D) (mm)	166 x 86 x 41	166 x 86 x 41	148 x 188 x 41	296 x 188 x 42	126 x 196 x 60
Alarms, passwords, recipes	157x77	157x77	123 x175	See installation sheet	107 x 178
Cut-out dimensions (W/H) (mm)	157x77	157x77	123 x175	See installation sheet	107 x 178
Weight (kg)	0.5	0.5	0.7	0.88	0.9
Protection degree (front)	IP 66	IP 66	IP 65	IP 65	IP 65
Protection Languages	4	4	6	6	8
Password levels/Bit passwords	-/8	-/8	10/8	10/8	10/8
Pages/Fields per page	127/72	127/72	1024/32	1024/32	1024/16
Format of variables	DEC, HEX, BIN, BCD, ASCII, Floating point	DEC, HEX, BIN, BCD, ASCII, Floating point	DEC, HEX, BIN, BCD, ASCII, Floating point	DEC, HEX, BIN, BCD, ASCII, Floating point	DEC, HEX, BIN, BCD, ASCII, Floating point
Dynamic texts/Lists of images	Value depends on dimensions of project memory	Value depends on dimensions of project memory	Value depends on dimensions of project memory	Value depends on dimensions of project memory	Value depends on dimensions of project memory
ISA alarms/info-messages	-/128	-/128	-/1024	-/1024	1024/1024
Help messages (pages/info messages/alarms)	127/128/-	127/128/-	1024/1024/-	1024/1024/1024	1024/1024/1024
Alarm history buffer	-	-	-	-	256
Recipes (Number/Variables per recipe)	-	-	-	-	1024/256
Macros (Number/Commands per macro)	-	-	-	-	1024/16
Print pages (Total/Number of fields per page)	-	-	-	-	1024/64
Automatic operations/Timers	20/20	20/20	32/32	32/32	-
Equations	-	-	32	32	-
Keyboard Operative/function/alphanumeric keys	8/5/-	6/4/-	9/5/11	9/23/11	13/12/11
Certifications	CE, cULUS	CE, cULUS	CE, cULUS	CE, cULUS	CE, cULUS



# Graphic HMI

## Evergreen solutions for durable control

For those applications where more detail is needed than simple text and hard key input is important, the Graphic HMI is invaluable. Capable of importing advanced graphics and having up to 28 keys, these powerful units fulfill a common industrial requirement.

These are some features available on graphic HMIs:

- On-screen graphics
- Alarms, passwords, recipes
- Use of Windows® fonts
- Importation of graphic images in any format
- Moving graphic objects
- Two drivers run simultaneously
- Serial or parallel printing
- Integrated CAN
- Keyboard input/selection
- Powered by Polymath



VT330

HMI with 10,4" graphic LCD display, 256 colors, 30 rows by 80 characters, VGA (640 x 480), MSP (RS232/422/485/TTY), ASP (RS232/485), LPT (Centronics), 2,3 MB project, clock, 256 KB recipes, 16 operative keys (28 function keys, 16 customizable)



VT130

HMI with 3" graphic LCD display, STN 4 tones of blue, 160x80, 512 KB project, clock, 128 KB recipes, 25 operative keys (5 function keys, 20 customizable). Available also with Profibus-DP network

### Features

	VT130	VT330
Display Type	Graphic LCD 4 tones of blue STN	Graphic LCD 256 colors TFT
Display Backlight	White LED	CCFL
Display Resolution (pixel)	160 x 80 (3")	640 x 480 (10,4")
Backlight life (hours)	50k	30k
Display area size (mm h-v)	67 x 37	211,2 x 158
Columns by Rows/Character dimensions	Depending on used Font	
Contrast adjustment	Software	
Character set	Programmable Fonts/TTF Windows® (also Unicode)	
Project (text+graphic) (bytes)	640K	640K+1792K
Recipes/Alarm buffer (bytes)	16K/8K FLASH	256K/8K RAM
Memory card for backup/Expansion (bytes)	-	8M/4M (graphic)
MSP serial port	RS-232 (8 pin)	RS-232/RS485 (15 pin)
LPT parallel port	-	Centronics
Integrated (option)	Profibus-DP	-
Optional	Profibus-DP, CAN, Interbus-S	-
ESA-Net (variables)	Client	Server (256), Client
Power supply (Vdc)	18 - 32	-
Consumption (W)	10	15
Operating temperature (°C)	0 ... +50 (non condensing)	-20 ... +60
Storage temperature (°C)	-	< 85% (non condensing)
Humidity	-	-
External dimensions (W/H/D) (mm)	166 x 100 x 39,6	435 x 260 x 74
Cut-out (W/H) (mm)	157 x 91	403 x 240
Weight (kg)	0,5	4
Protection degree (front)	IP 66	8
Project Languages	4	10/ 8
Password levels/Bit passwords	-	-
Pages/Fields per page	64/22	1024/304
Format of variables	DEC, HEX, BIN, BCD, ASCII, Floating point	-
Dynamic texts/Lists of images	Dynamic texts/Lists of images Value depends on dimensions of project memory	-
ISA alarms/Info-messages	256/256	1024/1024
Help messages (pages/info messages/alarms)	64/256/256	1024/1024/1024
Alarm history buffer	220	256
Recipes (Number/Variables per recipe)	128/256	1024/512
Trends (Memory/Number of samples)	-	8192/640
Pipelines (Number/Total bytes)	-	64/512
Print pages (Total/Number of fields per page)	64/128	1024/128
Automatic operations/Timers Equations	-	32/32/32
Max bargraphs per page (taken together with fields)	32	304
Indicators,potentiometers,selectors per page	-	256
Project images	BMP, JPEG, TIFF, .... etc	BMP, JPEG, TIFF, PSD, WMF, PNG, EPS, .... etc
Hardware clock	Supercapacitor 72 hours	With battery
Operative/function/alphanumeric keys	10/5/10	19/28/27
Certifications	-	CE, cULus , (Group II - cat.3 G D - zone 2/22)





## HANDELED HMI

### The power in your hands

Esa Automation offers the handheld solution HMI, with different kind of communication interface, serial and CAN. The handheld HMI is connected to the field with the standard cable. In the handheld solution you find 10 programmable Soft Key. The handheld solution is customizable with a different kind of buttons on the front, and on the rear we have the three-way "operator present" button.

**Possibility to have a customized product tailored on your needs.**



VT505H HMI

with 5,7" graphic STN LCD display, 4 blue levels, 16 rows by 40 characters (320 x 240), Touch-Screen, 640 KB project, software clock, 16 KB recipes, 10 mt cable



VT525H HMI

with 5,7" graphic 16-color STN LCD display, 16 rows by 40 characters (320 x 240), Touch-Screen, 960 KB project, clock, 32 KB recipes, 10 mt cable

These are main features of ESA Automation handheld:

- Over 150 communication protocols for PLCs, inverters, temperature controllers and other devices.
- Fieldbuses connections to MPI and CANopen (only VT505H) and up to 150 pages with help, 1500 variables
- Multilanguage, including Oriental and Cyrillic characters
- Recipe handling, Alarms, 10 levels of Passwords
- Moving Graphical objects
- Unique programming software in 6 languages
- Connection to serial printer
- 10 Function Keys
- Three-way "operator present" button
- Mushroom-shaped start and stop button (lights up with "start")
- IP65 protection all around
- Powered by Polymath

Features	VT505H	VT525H
Display Size	5,7"	5,7"
Display Technology	STN	STN
Display Colors	4 tones of blue	16 colors
Display Backlight	CCFL	CCFL
Display Resolution (pixel)	320 x 240	320 x 240
Backlight life (hours)	45k	50k
Touch Screen Matrix (cell dimension in pixels h-v)	20 x 16 (16x15)	20 x 16 (16x15)
Display area size (mm h-v)	115,2 x 86,37	115,2 x 86,37
Columns by Rows/Character dimensions	Depending on used Font	
Contrast adjustment	Software	
Character set	Programmable fonts/TTF Windows* (also Unicode)	
Project memory (text+graphic) (bytes)	640K	960K
Recipes/Alarm buffer (bytes)	16K/- FLASH	32K/8K FLASH
HSP serial port	RS-232/422/485/TTY 20 mA - on VTHCB (excluded CAN version)	
ASP serial port	-	RS-232 - on VTHCB (excluded CAN version)
Integrated (option)	CAN	-
ESA-Net (variables)	-	
Power supply (Vdc)	Client	Client
Consumption (W)	18 - 32	10
Operating temperature (°C)	0 ... + 50 (non condensing)	
Storage temperature (°C)	-20 ... + 60	
Humidity	<85% (non condensing)	
External dimensions (W/H/D) (mm)	250 x 222 x 100	
Weight (kg)	3	
Protection degree	IP 65 on all sides	
Project Languages	4	6
Password levels/Bit passwords	10/8	10/8
Pages/Fields per page	128/24	150/48
Format of variables	DEC, HEX, BIN, BCD, ASCII Floating point	
Dynamic texts/Lists of images	Value depends on dimensions of project memory	
ISA alarms/Info-messages	-/256	256/256
Help messages (pages/info messages/alarms)	128/256/-	150/256/256
Alarm history buffer	-	220
Recipes (Number/Variabes per recipe)	128/256	128/256
Macros (Number/Commands per macro)	-	1024/16
Print pages (Total/Number of fields per page)	-	64/128
Automatic Operations/Timers/Equations	32/32/52	
Max bargraphs per page (taken together with fields)	34	48
Project Images	BMP, JPEG, TIFF, PSD, WMF, PNG, EPS, ECC...	
Buttons per page	Number of buttons corresponding to the number of Touch-Screen cells	
Hardware clock	-	Supercapactor 72 hours
Function keys	10	
Certifications	CE/CULus	

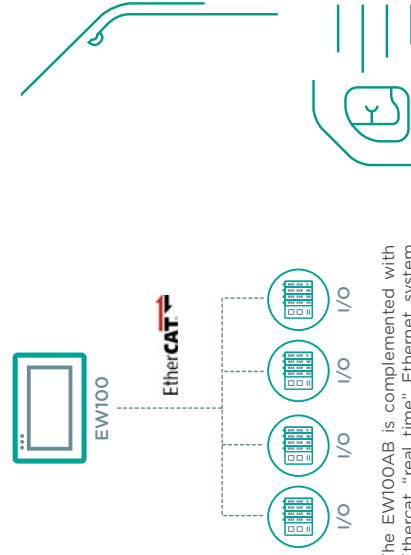


**esaware**  
Join the next step.



## Esaware HMI + SoftPLC Control made easy

Our HMI + SoftPLC CoDeSys + Ethercat master visualization/control through remote I/O and Remote Maintenance Platform. A solution for the control and command of any kind of industrial application. Thanks to the Ethercat Master interface it is possible to connect different devices to the external environment.



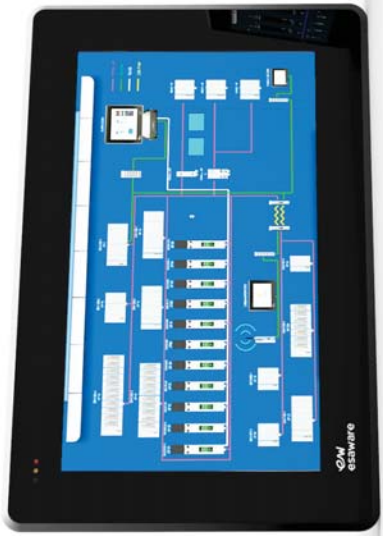
The EW100AB is complemented with Ethercat "real time" Ethernet system enabling high-performance control and communication of compatible I/O and motion control devices.



Features

EW104AB      EW107AB      EW112AB      EW115AB

Display Size	4,3"	7"	12,1"	15,6"
Display Technology			TFT	
Display Colors	262k		16M	
Display Backlight			LED	
Display Brightness (cd/m²)	400	600	400	300
Display Resolution (pixel)	480 x 272	800 x 480	1280 x 800	1366 x 768
Backlight life (hours)			50k	
Processor			ARM Cortex A8	
RAM		256 MB DDR3		512 MB DDR3
Flash				3GB
NVRAM				32Kb (SoftPLC)
Scan Time (µSec)				Typical 30
Serial Ports		SPI RS232/485-MPI-COM0 ; SP2 RS232/485-MPI-COM0 ; CAN ; Profibus		
Ethernet (Ethercat Master)	1 x 10/100Mb			2 x 10/100Mb
USB Ports		1 x USB Host + 1 x USB Device		2 x USB Host + 1 x USB Device
Cardbus Slot				1 x SDHC/MMC
Power Supply (Vdc)			18 - 32	
Consumption (W)	4	7	15	19
Operating Temperature (°C)		-10 ... +50 (non condensing)		
Storage Temperature (°C)			-20 ... +65	
Humidity			<90% (non condensing)	
External dimensions (W/H/D) (mm)	166 x 112 x 46 (61 with double port)	202 x 142 x 46	341 x 239 x 49	437 x 286 x 54,5
Cut-out dimensions (W/H) (mm)	158,5 x 104,5	195,0 x 135,0	326,0 x 227,0	422,5 x 271,5
Weight (kg)	0,5	0,8	2,5	4,5
Protection degree (front)			IP 66	
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / cULus (Certificate no. E189179) / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22			

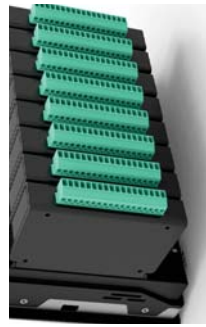
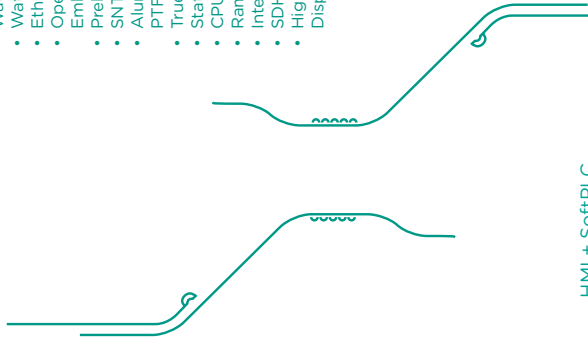


## Esaware HMI + SoftPLC + I/O Control made easy

Our HMI + SoftPLC CoDeSys + Ethercat master + I/O visualization/control through onboard I/O and Remote Maintenance Platform. The embedded complete solution for the control and command of any kind of industrial application. Thanks the EW600 I/Os it is possible to create extremely flexible configurations.

These are EW100AC main features:

- Backplane for EW600 I/O
- Preloaded CoDeSys v.3.5 Runtime
- Embedded NVRam
- Watchdog Sw
- Ethercat interface on board
- Operating System Windows
- Embedded Compact 7 Pro
- Preloaded Everyware runtime
- SNTP Server and Client
- Aluminum Front Side
- PTFE coating
- True Flat Touch Screen
- Status leds on front
- CPU Arm Cortex A8 1 GHz
- Ram DDR3
- Internal Memory 3 Gbyte
- SDHC v2.0 (up to 25 Mbyte/s)
- High Bright 16 Millions Colors Display



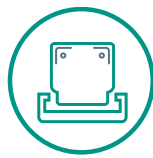
With the addition of an integrated I/O backplane and Esaware EW600 local I/O, the EW100AC is the complete automation control system. The EW100AC "all in one" solution can be expanded with Ethercat "real time" distributed I/O, delivering ultimate flexibility and efficiency.



Features	EW104AC	EW107AC	EW112AC	EW15AC
Display Size	4,3"	7"	12,1"	15,6"
Display Technology			TFT	
Display Colors	262k		16M	
Display Backlight	400	600	400	300
Display Brightness (cd/m²)	480 x 272	800 x 480	1280 x 800	1366 x 768
Backlight life (hours)		50k		
Processor		ARM Cortex A8		
RAM	256 MB DDR3			512 MB DDR3
Flash		3GB		
I/O Slot	4	8	12	16
NVRAM		32Kb (SoftPLC)		
Scan Time (µSec)		Typical 30		
Serial Ports		SPI RS232/485-MPI-COM0 ; SP2 RS232/485-MPI-COM0 ; CAN ; Profibus		
Ethernet (Ethercat Master)	1 x 10/100Mb	1 x USB Host + 1 x USB Device	2 x 10/100Mb	
USB Ports		1 x USB Host + 1 x USB Device	2 x USB Host + 1 x USB Device	
Cardbus Slot		1 x SDHC/MMC		
Power Supply (Vdc)		18 - 32		
Consumption (W)	4	7	15	19
Operating Temperature (°C)		-10 ... + 50 (non condensing)		
Storage Temperature (°C)		-20 ... + 65		
Humidity		<90% (non condensing)		
External dimensions (W/H/D) (mm)	166 x 12 x 46 (6) (with double port)	202 x 142 x 46	341 x 239 x 49	437 x 286 x 54,5
Cut-out dimensions (W/H) (mm)	158,5 x 104,5	195,0 x 135,0	326,0 x 227,0	422,5 x 271,5
Weight (kg)	0,5	0,8	2,5	4,5
Protection degree (front)		IP 66		
Certifications	CE / EN60068-2-6 / EN60068-2-7 / Humidity EN60068-2-30 / cULus (Certificate no. E189178) / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22			

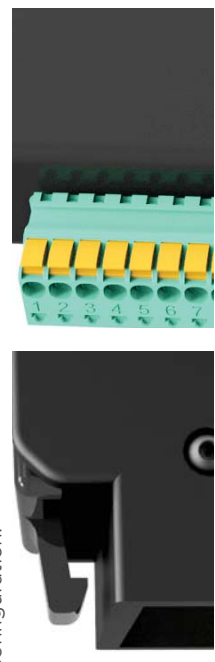


# Embedded I/O Click & Play



Esaware I/O modules complete our HMI EW100AC series, giving you the ability to fully command and control all of your applications.

All EW600 I/Os are modular, which means that it is possible to create different configurations depending on your needs. They have been designed to guarantee excellent ergonomics and to be extremely easy to install. In fact, they offer a fast cabling system with cage clamps and can be cabled just by extracting the connectors. In addition, Esaware I/O modules are configurable via software without any dip switch or any other kind of hardware configuration.



# INPUT MODULES

## Digital I/O - EW600B

Mixed opto-isolated input and output modules to prevent signal from suffering due to high voltages, by isolating the circuits using a LED and a receiver. That is why opto-isolators are the best solution to secure control over your plant at any time.

EW600B04 8 Digital Input + 4 Digital Output

Supply Voltage (Vdc)	24
Isolation	Optoisolated
Input Numbers	8
Input Type	PNP, NPN
Output Numbers	4
Output Type	PNP (300 mA/output)
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / cULus (Certificate no. E189179) / EAC / Directive 94/9/EC Atex Group II - Category 3 G-P Zone 2/22 (Mounted on EW100AC)



## Analog I/O - EW600A

Mixed input and output modules to manage analog signals produced by the field and to regulate all actuators. Thanks to a powerful signal-processing unit, they guarantee high precision control.

### EW600A03A02 3 Analog Input + 2 Analog Output

Supply Voltage (Vdc)	24
Input Numbers	3
Input Type	0 / 5 V, 0 / 10 V, +10 / -10 V, 0 / 20 mA, 4 / 20 mA
Output Numbers	2
Output Type	0 / 5 V, 0 / 10 V, +10 / -10 V, 0 / 20 mA, 4 / 20 mA
Resolution	16 Bit
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / cULus (Certificate no. E189179) / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

## Thermocouples Input - EW600D

Input modules for thermocouples sensors with internal or external cold junctions. Thanks to the powerful signal-processing unit, they guarantee very high resolution.

### EW600D06N00 6 Thermocouple Input

Input Numbers	6
Input Type	K / J / E / T / N / B / R / S
Resolution (°C)	+ 0.1 / - 0.1
Cold Junction	Internal and External
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

## High Speed Input - EW600C

Opto-isolated input modules for fast signal input or fast counter up to 100 KHz.

### EW600C02N00 2 High Speed Input

Supply Voltage (Vdc)	24
Input Numbers	2
Input Type	Incremental Pulse / Differential Phase (4x) / Up/Down / Pulse + Direction (5-30 Vdc)
Isolation	Optoisolated
Frequency (KHz)	100
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

### EW600E04N00 4 Resistance Thermometer Input

Input Numbers	4
Input Type	Pt100 / Pt200 / Pt500 / Pt1000 / Ni100 / Ni1000
Resolution (°C)	+ 0.1 / - 0.1
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	-10 ... + 50 non condensing
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

## Thermoresistances Input - EW600E

Input modules for thermoresistance sensors. Thanks to the powerful signal-processing unit, they guarantee very high resolution.

## OUTPUT MODULES

### Digital I/O - EW600B

Mixed optoisolated input and output modules to prevent signal from suffering due to high voltages, by isolating the circuits using a LED and a receiver. That is why optoisolators are the best solution to secure control over your plant at any time.

#### EW600B08B04 8 Digital Input + 4 Digital Output

Supply Voltage (Vdc)	24
Isolation	Optoisolated
Input Numbers	8
Input Type	PNP, NPN
Output Numbers	4
Output Type	PNP (300 mA/output)
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / cULus (Certificate no. E189179) / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

### High Speed Output - EW600N

High speed output modules to command signals up to 300 KHz.

#### EW600N00C04 4 High Speed Output

Supply Voltage (Vdc)	24
Output Numbers	4
Isolation	Optoisolated
Output Type	CW/CCW - Pulse+Direction 12 - 32Vdc push-pull
Output Current (mA)	5 - 10
Resolution (Hz - KHz)	200Hz - 300KHz
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

### Analog I/O - EW600A

Mixed opto-isolated input and output modules to prevent signal from suffering due to high voltages, by isolating the circuits using a LED and a receiver. That is why opto-isolators are the best solution to secure control over your plant at any time.

#### EW600A03A02 3 Analog Input + 2 Analog Output

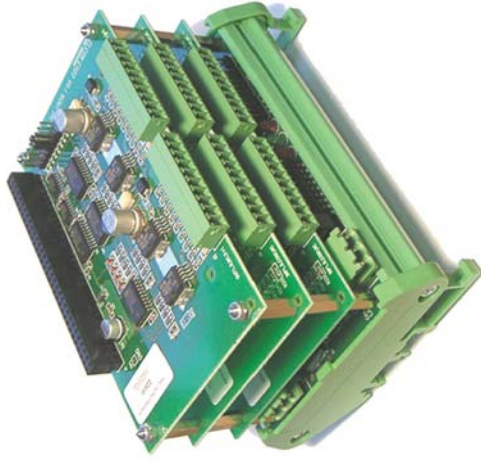
Supply Voltage (Vdc)	24
Input Numbers	3
Input Type	0 / 5 V, 0 / 10 V, +10 / -10 V, 0 / 20 mA, 4 / 20 mA
Output Numbers	2
Output Type	0 / 5 V, 0 / 10 V, +10 / -10 V, 0 / 20 mA, 4 / 20 mA
Resolution	16 Bits
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / cULus (Certificate no. E189179) / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)

### PWM (Pulse with modulation) Output - EW600N

PWM output modules to command signals up to 300 KHz.

#### EW600N00E04 4 PWM Output

Supply Voltage (Vdc)	24
Output Numbers	4
Isolation	Optoisolated
Output Type	PWM - 12 - 32 Vdc push-pull
Output Current (mA)	5 - 10
Resolution (Hz - KHz)	200Hz - 300KHz
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	96 x 72 x 20
Protection Degree	IP 20
Certifications	CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30 / EAC / Directive 94/9/EC ATEX Group II - Category 3 G-D Zone 2/22 (Mounted on EW100AC)



## Remote I/O e-motion technology

Distributed I/O modules and remote AXES represents the best technical solution for anyone engaged in automation engineering, significant cost reductions can be achieved by simplifying wiring and commissioning on any machine. Thanks to their modularity and the numerous models available you can, strategically distribute the elements to simplify and optimize the on-board machine systems. The connection between the PAC and the modules is made via a CAN bus network on a standard CAN Open protocol, which provides noise immunity, with the consequent security of the data transmitted, and extremely fast installation.

Uncompromising remote control axes the E1127 Can Bus Axis card is equipped with two encoder inputs with a band of 200 KHz which is fully configurable (line drivers; 5V or 12V open collector). The E1123 version allows the same performance by managing stepper motors or drives directly with Step+Dir output.

Maximum ergonomics the vertical mounting system exclusive to ESA Automation is the most ergonomic solution on the market. Total configurability each E1120 bridge can fit eight ESA Automation Can Bus cards. Up to 127 E1120 bridges can be routed on one CAN channel.

These are main features of Remote I/O

- Can Bus - Standard Can Open DS 301 (Ds 402) profile
- 3 different layouts available (din rail / wall mounted / boxed)
- Local Risk high speed CPU
- Up to 700ma max current on digital output
- Short circuit protected digital output
- NPN/PNP configurable digital input
- 5V / 12 V configurable on board encoder power supply
- Line driver / Open Collector encoder type configurable on board input
- Zero (Z and Z') input logic state configurability
- Mono/bidirectional encoder input configurability
- Up to 200 khz encoder input
- Step + Dir configurable PNP / NPN output
- Up to 65 KHz stepper output
- Drive "Ok" or "Fault" separate digital input
- 5V or 12V on board configurable Step + Dir output voltage

E1120	Card CAN NODE DIN rail	BRIDGE
	Power Supply	+24Vdc power consumption 100mA
	I/O	Local BUS for expansion cards E1121, E1122, E1123, E1124, E1127, E1191, E1192
	Dimensions	128 x93 mm

E1121	Card 16 DIGITAL INPUTS PNP/NPN Opto for E1120	INPUT
	INP Power Supply	Common with +24Vdc (NPN) or ground (PNP) in groups of 8
	Inputs	The input stage is sized for a value of $V_{in} > +15Vdc$ (typical +24Vdc)

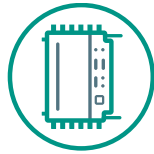
E1122	Card 16 DIGITAL OUTPUTS PNP for E1120	OUTPUT
	OUT Power Supply	2 common with +24Vdc, common GND with E1120
	Outputs	Typical current 500mA each output, maximum 700mA in groups of 4
	Protections	From short-circuit, temperature

E1123	Card 2 STEPPER AXES for E1120	STEPPER
	Control Outputs	PNP +5V or +12V (Enable, DIR, Current)
	STEPPER Outputs	PNP or NPN
	Frequency	min 38Hz, max 65KHz
	Fault Input	PNP or NPN +5V, +12V, +24V

E1124	Card 8 ANALOG INPUTS for E1120	ANALOG
	POT power supply	Reference voltage + 5Vdc 5mA for external potentiometers
	Inputs	Independently selectable as 0/5V - 0/10V - 0/20mA resolution 12bit

E1127	Card 2 ANALOG AXES for E1120	AXIS
	ENC Power Supply	+ 12V+5V selectable separately for the 2 axes
	ENCODER	Line-Driver/Open Collector (mono/bi-directional)
	Analog Output	2 x + 10V 12 bit
	Frequency	Open Collector: 100KHz, Line Driver:200KHz

Layout		
DIN rail Layout	DIN rail module for combination of up to 8 cards with E1120 BRIDGE	
Boxed Layout	Stainless Steel module for combination of up to 3/6 CARDS with E1120 BRIDGE	
Wall Mounted Layout	Wall Mounted module for combinations up to 8 cards on E1120 BRIDGE	



## PAC BOX e-motion technology

ESA Automation's PAC BOX Solution

The "blind" PAC is ideal for those applications that need the power of our renowned PLC, CNC, Motion Control and IT server but require external/remote visualisation. Available as either Non OS ARM based or X86 real time Windows based the Human Interface can be provided by an external application (BOX ARM) or the PAC can host HMI pages managed by standard keyboard, mouse, monitor etc. (BOX 1000)

These are main features of Pac Box

- Arm or PC Windows \* Real Time based CPU available
- Several on board digital PLC I/O\*
- Up to 1200ma max current on digital output
- Short circuit protected digital output
- On board configurable 0-10V / 0-20ma 12 bit analog input\*
- On board Axis input for motion Control & CNC applications \*
- 5V /12 V configurable on board encoder power supply
- Line driver / Open Collector encoder type configurable on board input
- Mono/bidirectional encoder input configurability
- On board Analog and / or Step + Dir outputs for drives controls
- Up to 6 Can Bus (Can Open Ds 301 -402 profile) ports for digital drives control & expansion
- Linear, Circular, Polar interpolation
- Electronic Cams Controls, Gantry Axis , Tool compensation: complete CNC functions availability

\* expandable by Esa Remote I/O system

Features

Windows Real Time Based CNC System BOX 1000 BOX CNC

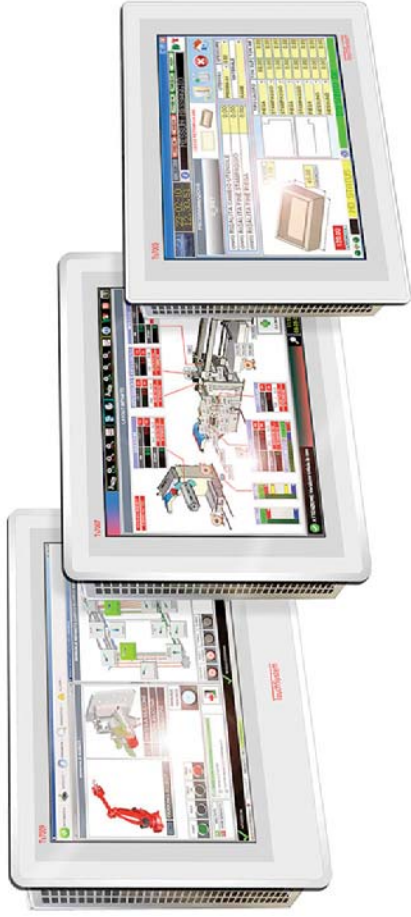
<b>CPU</b>	Intel Atom D525 Dual Core 1.86 GHz
<b>Main Storage memory</b>	1. flash disks (different sizes available)
<b>Serial Ports</b>	1 RS232
<b>Universal Serial Port Bus - USB</b>	4, USB 2.0
<b>Mouse and Keyboard</b>	1, PS/2 port
<b>Integrated Sound card</b>	1 Audio port set (jack 3.5 mm for audio line output , mic input)
<b>Field Bus</b>	3. CAN BUS , prot. Can Open (+3 optional)
<b>Lan Ethernet</b>	1, Ethernet 10/100/1000

Features

Box Arm

<b>CPU</b>	Cortex M3 / Arm 7
<b>Digital input</b>	20, PNP, with LED status indicator
<b>Digital outputs</b>	20, solid state 24VdcPNP, max current 12A each, divided in 3 groups (three different output supply common input) (8-8-4) with LED status indicator
<b>Analog inputs</b>	6, resolution 12 bit, configurable by jumpers as 0-10V, 4-20ma digital output
<b>4 Axes</b>	4, encoder input (zero) Line Driver or Open Collector/Push Pull, voltage 12 or 5V (configurable by jumper) (bandwidth: 15 Mhz) - 4 analog outputs (step & direction) output or 4 stepper outputs (step & direction)
<b>Main Flash storage memory</b>	1, removable SD Flash 1 GB
<b>Serial Ports</b>	3, 2 RS232 + 1 RS485
<b>Lan Ethernet - Teleservice</b>	1, Ethernet TCP /IP - FTP compatible - Modbus/TCP server, with remote desktop function
<b>Serial ports</b>	2, 1 RS232 + 1 RS485
<b>Lan Ethernet - Teleservice</b>	1, Ethernet TCP /IP - FTP compatible - Modbus/TCP server, with remote desktop function
<b>Universal Serial Bus Port - USB</b>	1, USB 2.0 for pen drive
<b>Field Bus</b>	2, CAN BUS MASTER , Can Open protocol
<b>Real Time Clock (RTC)</b>	1, Real Time Clock ; 24 hours with SCHEDULER (real calendar)





## PAC TOUCH e-motion technology

ESA Automation offers PAC Touch Solutions ARM based.

The most complete range of " ALL IN ONE " PAC controls. Starting from the little 4,3" to the bigger, 15" touch screen display, discover our famous, powerful PLC, HMI, MOTION CONTROL, CNC and IT server in only one instrument. Discover the advantages of writing A SINGLE APPLICATION grouping together the PLC CYCLE, CNC and HMI INTERFACE. You'll find the right hardware solution to improve your machine.

All our system can be connected to our complete range of CAN Open Expansions boards, to increase the I/O and Axis integrated equipment.

These are main features of Pac Touch

- Arm or PC Windows \* Real Time Fanless based CPU available 4,3" - 5,7" - 7" - 8,4" - 10" - 12" - 15" on board display available
- Easily customizable front panels
- Several on board digital PLC I/O\* Up to 1200ma max current on digital output
- Short circuit protected digital output
- On board configurable 0-10V / 0-20ma 12 bit analog input\*
- On board Axis input for Motion Control & CNC applications \*
- 5V /12 V configurable on board encoder power supply
- Mono/bidirectional encoder input configurability
- Line driver / Open Collector encoder type configurable on board input
- On board Analog and / or Step + Dir outputs for drives controls
- Up to 6 Can Bus (Can Open Ds 301-402 profile) ports for digital drives control & expansion
- Linear, Circular, Polar interpolation
- Electronic Cam's Controls, Gantry Axis , Tool compensation: all complete CNC functions availability
- Ready to use applications availability for several industrial branches
- Large flash memory data storage capability for powerful data logging applications

\* expandable by Esa Remote I/O system

### Features

#### TS804 Visual PLC + CNC

<b>Main CPU</b>	CPU Arm 7
<b>Touch Screen Display</b>	4,3" Color, resolution 480x272
<b>Digital Inputs*</b>	16, 24Vdc, PNP with led
<b>Digital Outputs</b>	16, solid state, 24Vdc, PNP, 1,2Amp each with led
<b>Configurable I/O</b>	2, configurable by external jumpers as: 2 analog output $\pm 10V$ - resolution 14 bit or: 2 STEPPER-DIR (2V push pull - max 1 Mhz) or: 2 Analog inputs 14 bit - 0-3.3V
<b>Encoder inputs</b>	2 encoder inputs settable as Line driver or open collector, 12 or 5V encoder supply (settable by ext jumpers), 1,5 mhz bandwidth
<b>Analog outputs</b>	2, $\pm 10V$
<b>Analog inputs</b>	2, 0-3.3V (0-10V or 0-20ma can be obtained with external resistors)
<b>Main Flash storage memory</b>	1, removable SD Flash min 1 GB
<b>Serial ports</b>	2, RS232
<b>Lan Ethernet - Teleservice</b>	1, Ethernet TCP /IP - Ftp compatible - Modbus/TCP server, with remote desktop function
<b>Universal Serial Bus - USB</b>	1, USB 2.0 for pen drive
<b>Field Bus</b>	1, CAN BUS MASTER, Can Open protocol
<b>Real Time Clock (RTC)</b>	1, Real Time Clock; 24 hours with SCHEDULER (real calendar)

### Features

#### TS804L Visual PLC + CNC

<b>Main Cpu</b>	CPU Arm 7	<b>TS804LX Visual PLC + CNC</b>
<b>Touch Screen Display</b>	4,3" Color, resolution 480x272	
<b>Digital inputs</b>	4, 24Vdc, PNP	8, 24Vdc, PNP*
<b>Digital outputs</b>	4, solid state, 24Vdc, PNP, 1,2Amp each	8, solid state, 24Vdc, PNP, 1,2Amp each
<b>Configurable I/O</b>		4, configurable as digital inputs 24VDC or outputs
<b>Analog inputs</b>	4, configurable by jumper as 0-20ma, 0-10V - 0-3.3V	4, configurable by jumper as 0-20ma, 4-20ma, 0-10V ; 2 are configurable for direct input the more resistance Pt 100
<b>Analog outputs</b>	2, configurable by jumper as 0-20mA o 0-10V ou PWM / Step- per (to be specified before purchasing)	2, configurable as 0-20mA or $\pm 10V$ or PWM
<b>Main Flash storage memory</b>	1, removable SD Flash 1 GB	
<b>Encoder inputs</b>	1 Input Line driver, Push Pull or Open Collector - 150 KHz bandwidth	2 inputs PNP Open Collector (on inputs 5-8 digital) - bandwidth 200 KHz
<b>Serial ports</b>	3, 2 RS232 + 1 RS 485	2, 1 RS 232 + 1 RS 485
<b>Lan Ethernet - Teleservice</b>	1, Ethernet TCP /IP - Ftp compatible - Modbus/TCP server, with remote desktop function	
<b>Universal Serial Bus - USB</b>	1, USB 2.0 for pen drive	
<b>Field Bus</b>	1, CAN BUS MASTER, Can Open protocol	
<b>Real Time Clock (RTC)</b>	1, Real Time Clock ; 24 hours with SCHEDULER (real calendar)	

Features

TS5600 ARM Visual Plc + CNC

CPU	Cortex M3 - Arm 7
Touch Screen Display	5.7" LED color, resolution 320x240
Digital Inputs	20, PNP, with LED status indicator
Digital outputs	20, solid state 24Vdc PNP, max current 1.2A each, divided in 3 groups (three different output supply common input) (8+8+4) with LED status indicator
Analog Inputs	6, resolution 12 bit, configurable by jumpers as 0-10V, 4-20ma
4 Axes	4, encoder input (zero), Line Driver or Open Collector/Push Pull, voltage 12 or 5V (configurable by jumper) (bandwidth: 1.5 Mhz) - 4 analog output +10V 12 bit - 4 PWM output or 4 stepper outputs (step + direction)
Main Flash storage memory	1, removable SD Flash 1 GB
Serial ports	3, 2 on standard RS 232 + 1 on standard RS 485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - FTP compatible - Modbus/TCP server, with remote desktop function
Universal Serial Port Bus - USB	1, USB 2.0 for pen drive
Field Bus	2, CANBUS MASTER, Can Open protocol
Real Time Clock (RTC)	1, Real Time Clock: 24 hours with SCHEDULER (real calendar)

Features

TS5690 ARM Visual Plc + CNC

CPU	Cortex M3 - Arm 7
Touch Screen Display	10.4" - color, 800x600 resolution
Digital Inputs	20, PNP, with LED status indicator
Digital outputs	20, solid state 24Vdc PNP, max current 1.2A each, divided in 3 groups (three different output supply common input) (8+8+4) with LED status indicator
Analog inputs	6, resolution 12 bit, configurable by jumpers as 0-10V, 4-20ma
4 Axes	4, encoder input (zero), Line Driver or Open Collector/Push Pull, voltage 12 or 5V (configurable by jumper) (bandwidth: 1.5 Mhz) - 4 analog output +10V 12 bit - 4 PWM output or 4 stepper outputs (step + direction)
Main Flash storage memory	1, removable SD Flash 1 GB
Serial ports	3, 2 on standard RS 232 + 1 on standard RS 485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - Ftp compatible - Modbus/TCP server, with remote desktop function
Universal Serial Port Bus - USB	1, USB 2.0 for pen drive
Field Bus	2, CANBUS MASTER, Can Open protocol
Real Time Clock (RTC)	1, Real Time Clock: 24 hours with SCHEDULER (real calendar)

Features

TS5970 ARM Visual Plc + CNC

CPU	Cortex M3 / Arm 7
Display Touch Screen	7" LED color, 800x480 resolution
Digital Inputs	20, PNP, with LED status indicator
Digital outputs	20, solid state 24Vdc PNP, max current 1.2A each, divided in 3 groups (three different output supply common input) (8+8+4) with LED status indicator
Analog Inputs	6, resolution 12 bit, configurable by jumpers as 0-10V, 4-20ma
4 Axes	4, encoder input (zero), Line Driver or Open Collector/Push Pull, voltage 12 or 5V (configurable by jumper) (bandwidth: 1.5 Mhz) - 4 analog output +10V 12 bit - 4 PWM output or 4 stepper outputs (step + direction)
Main Flash storage memory	1, removable SD Flash 1 GB
Serial ports	3, 2 in standard RS 232 + 1 in standard RS 485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - Ftp compatible - Modbus/TCP server, with remote desktop function
Universal Serial Port Bus - USB	1, USB 2.0 for pen drive
Field Bus	2, CANBUS MASTER, Can Open protocol
Real Time Clock (RTC)	1, Real Time Clock: 24 hours with SCHEDULER (real calendar)

Features

TS7002 ARM Visual Plc + CNC

CPU	Cortex M3 / Arm 7
Touch Screen Display	12" LED color, resolution 800x600
Digital Inputs	20, PNP, with LED status indicator
Digital outputs	20, solid state 24Vdc PNP, max current 1.2A each, divided in 3 groups (three different output supply common input) (8+8+4) with LED status indicator
Analog Inputs	6, resolution 12 bit, configurable by jumpers as 0-10V, 4-20ma
4 Axes	4, encoder input (zero), Line Driver or Open Collector/Push Pull, voltage 12 or 5V (configurable by jumper) (bandwidth: 1.5 Mhz) - 4 analog output +10V 12 bit - 4 PWM output or 4 stepper outputs (step + direction)
Main Flash storage memory	1, removable SD Flash 1 GB
Serial ports	3, 2 on standard RS 232 + 1 on standard RS 485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - FTP compatible - Modbus/TCP server, with remote desktop function
Universal Serial Port Bus - USB	1, USB 2.0 for pen drive
Field Bus	2, CANBUS MASTER, Can Open protocol
Real Time Clock (RTC)	1, Real Time Clock: 24 hours with SCHEDULER (real calendar)

Features

TS7002RT Windows Real Time Based CNC System

CPU	Intel Atom D525 Dual Core 1,86 GHz
Touch Screen Display	12" 4:3 color, resolution 800x480 (Optional: 1024x768)
Main Storage memory	1, flash disks (different sizes available)
Serial Ports	1 RS 232
Universal Serial Port Bus - USB	4, USB 2.0
Mouse and Keyboard	1, PS/2 port
Integrated Sound card	1 Audio port set (jack 3,5 mm for audio line output, mic input)
Field Bus	3, CAN BUS, Can Open protocol (+3 optional)
Lan Ethernet	1, Ethernet 10/100/1000

Features

TS7005RT Windows Real Time Based CNC System

CPU	Intel Atom D525 Dual Core 1,86 GHz
Display Touch Screen	12" 4:3 color, resolution 1024x768
Main Storage memory	1, flash disks (different sizes available)
Serial Ports	1 RS 232
Universal Serial Port Bus - USB	4, USB 2.0
Mouse and Keyboard	1, PS/2 port
Integrated Sound card	1 Audio port set (jack 3,5 mm for audio line output, mic input)
Field Bus	3, CAN BUS, Can Open protocol (+3 optional)
Lan Ethernet	1, Ethernet 10/100/1000



## PAC KEYBOARD

e-motion technology

ESA Automation offers a keyboard solution

PAC TEXT is a Non OS ARM based fully integrated PLC, HMI, MOTION CONTROL, CNC and IT server for those that want the benefits of a hard keyboard for data entry. Providing superior gloved hand operation and faster data entry when necessary, PAC TEXT is ideal for heavy industries, wood working machinery,

### These are main features of Pac Box

- Arm Cpu Based
- 5,7" on board display
- 32 keys with 5 programmable function keys
- Customizable front panel layout
- Esa "You Tool": integrated development tool for your HMI + PLC + CN "ALL IN ONE" programming
- Several on board digital PLC I/O\*
- Up to 1200ma max current on digital output, with over current thermal protection
- On board configurable 0-10V / 0-20ma 12 bit analog input\*
- On board Axis input for Motion Control & CNC applications \*
- 5V /12 V configurable on board encoder power supply
- Line driver / Open Collector encoder type configurable on board input
- On board Analog and / or Step + Dir outputs for drives controls
- Up to 2 Can Bus (Can Open Ds 301 -402 profile) ports for digital drives control & expansion
- Large flash memory data storage capability for powerful data logging applications

\* expandable by Esa Remote I/O system

### EC909 ARM Visual Plc + CNC

#### Features

<b>CPU</b>	Arm 7
<b>Display</b>	5,7" LED color, 320x240 resolution
<b>Keyboard</b>	32 keys
<b>Digital Inputs</b>	20. PNP, with LED status indicator
<b>Digital outputs</b>	20. solid state 24Vdc PNP, max current 1.2A each, divided in 3 groups (three different output supply common inputs) (E+8+4) with LED status indicator
<b>Analog inputs</b>	6. resolution 12 bit, configurable by jumpers as 0-10V, 4-20ma
<b>4 Axes</b>	4. encoder input (zero) Line Driver or Open Collector/Push Pull, voltage 12 or 5V (configurable by Jumper) (bandwidth: 1.5 Mhz) - 4 analog output +10V 12 bit - 4 PWM output or 4 stepper outputs (step + direction)
<b>Main Flash storage memory</b>	1. removable SD Flash 1 GB
<b>Serial ports</b>	3. 2 In standard RS232 + 1 In standard RS485
<b>Lan Ethernet - Teleservice</b>	1. Ethernet TCP /ip - Ftp compatible - Modbus/TCP server, with remote desktop function
<b>Universal Serial Bus Port - USB</b>	1. USB 2.0 for pen drive
<b>Field Bus</b>	2. CAN BUS MASTER, Can Open protocol
<b>Real Time Clock (RTC)</b>	1. Real Time Clock; 24 hours with SCHEDULER (real calendar)



## Esaware Web Panel Browser-based efficient control

Esaware Web Panel comes in two operating system variants, depending on the type of application.

The first solution EW100AD is based on the Android operating system and allows you to install native applications developed by the user.

The second solution EW100BD is based on the Linux operating system, and includes a serial port RS232/485 that can be used by any application user.

Both variants provide you with a compatible browser with HTML5 and Web Socket, ideal for displaying any Web content. Depending on your application Esaware Web Panel is available with two Operating System (OS) variants.

These are EW100AD main features:

- Linux Yocto Operating System or Android
- Chromium browser
- SNMP Server and Client
- Aluminum Front Side PTFE coating
- True Flat Touch Screen
- CPU Arm Cortex A9 Quad Core
- Ram DDR3L
- Internal Memory 8 Gbyte
- SDHC v2.0 (up to 25 Mbyte/s)
- High Bright 16 Millions Colors Display
- Wi-Fi and 3G



## Resistive Capacitive Web Panel for Thin Client Application

Features

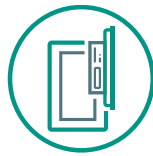
EW107AD / BD

EW112AD / BD

EW115AD / BD

Display Size	7"	12.1"	15.6"
Display Technology		TFT	
Display Colors		16M	
Display Backlight		LED	
Display Brightness (cd/m²)	500	400	300
Display Resolution (pixel)	1024x600	1280 x 800	1366 x 768
Backlight life (hours)		50k	
Touch Technology		Resistive (AD) - Capacitive (BD)	
Processor		ARM Cortex A9 Quad-Core	
RAM		4 GB DDR3L	
Flash		8 GB	
Ethernet		2 x 1GB	
USB Ports		2 x vers. 2.0	
Serial Port (Only Linux Version)		RS 232/485	
Expansion Slot		1 x MINI PCI express	
Cardbus Slot		1 x SDHC	
Power Supply (Vdc)		12 - 32	
Consumption (W)	7	15	19
Operating Temperature (°C)		-10 ... + 50 (non condensing)	
Storage Temperature (°C)		-20 ... + 65	
Humidity		<90% (non condensing)	
External dimensions (W/H/D) (mm)	192 x 132 x 32	341 x 329 x 32	437 x 286 x 32
Cut-out dimensions (W/H) (mm)	185.0 x 125.0	326.0 x 227.0	422.5 x 271.5
Weight (kg)		2.5	4.5
Protection degree (front)		IP 66	
Certifications		CE / EN60068-2-6 / EN60068-2-27 / Humidity EN60068-2-30	





## Esaware Panel IPC

### Design your own performance

The EW200 Panel IPC line satisfies the latest market and application requirements, thanks to new technological features such as LCD 16:9 widescreen display and resistive and capacitive touchscreen. Esaware Panel IPCs come in different sizes, from 12,1" to 21,5", and have been designed to work flawlessly in any situation.

Our unique Twist design and the PTFE non-stick coating prevent dust and dirt accumulation on the bezel, making it ideal for industrial environments.

Esaware Panel IPC's offer a comprehensive choice of options and configurations while maintaining high performance and lasting reliability.



SLIM version  
CPUs 4th generation FANLESS  
USB 3.0  
2 independent LANs



MITX version.  
Variety of Atom and i-core CPUs  
FANLESS and FAN  
Accessible dual slot bay 2,5"  
2 independent LANs  
PCI / PCIe Slot

These are EW200 Panel IPC MITX main features:

- SDRAM with DDR3 technology, less consumption but faster than DDR2
- Connection device on SATA 3.0, transfer baud rate up to 6.0 Gb/s.
- PCI / PCIe slot available
- Embedded and long availability Intel processors, based on 3rd and 4th Generation
- LCD wide-screen with LED backlight, 40% extra display surface

These are EW200 Panel IPC SLIM main features:

- Extremely reduced depth for CPU module.
- Intel Baytrail and Intel Haswell platforms, both fanless
- Embedded and long delivery 4th generation CPUs, engineered for high performances and low consumption
- CPUs Celeron J1900 quad core, Intel i3-4010U and Intel i7-4650U dual core, significantly increasing the overall performance
- New SoC technology (System-on-Chip): better performance with less components
- Enhanced embedded graphics with API directX 11
- RAM DDR3L, USB 3.0, 2 Intel® LANs

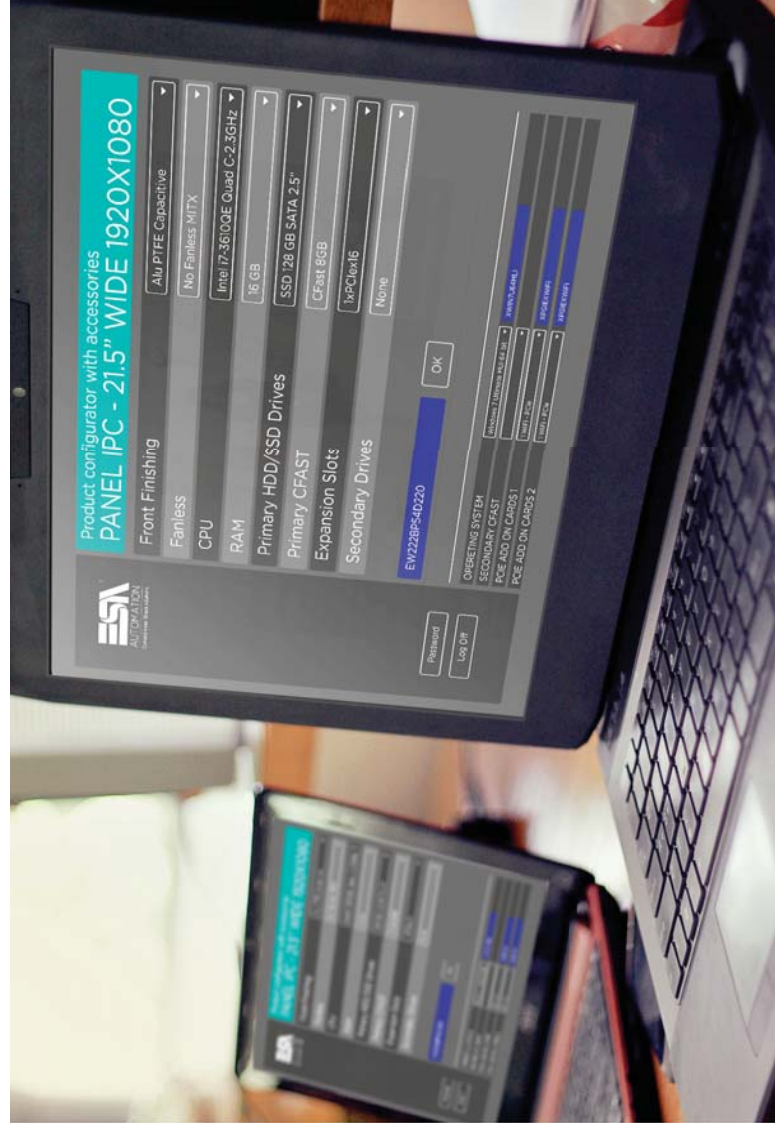
## EW200 MITX

Features	EW212	EW215	EW218	EW222
Display Size	12,1"	15,6"	18,5"	21,5"
Display Technology	TFT / 16,7 M			
Display Brightness (cd/m²)	400	500	300	5000
Contrast	1000	85/85/85/85	85/85/80/80	89/89/89/89
Viewing Angle	88/88/88/88	1250x800	1366x768	1920x1080
Display Resolution (pixel)			50k	
Backlight life (hours)				
Touch Technology	Resistive (5 wires) / Capacitive (PCT 10 touches)			
Bezel/Chassis	Aluminum with PTFE non-sticking coating / Sheet Steel			
CPU Fanless Atom	Atom dual core N2800 1,86 GHz			
CPU Fan Intel® Core™	Intel Core i3-3120ME 2,4GHz / i5-3610ME 2,7GHz / i7-3610QE 2,3 GHz			
Chipset	NM10 Atom / QM67 iCore			
GPU embedded	GMA3650 650MHz / HD Graphics - 4000			
RAM (Atom dual core)	up to 4GB DDR3 SODIMM 1066MHz 204 pin			
RAM ( Fan Intel® Core™)	up to 16GB DDR3 SODIMM 1333/1600MHz 204 pin			
RS232 / RS485	2x RS232 + 1x RS232-422-485			
USB Port IP66 front	1x no capacitive			
USB Ports 2.0/3.0 rear	4x/Ox.ATOM/Intel®Core™ (fan)			
Ethernet (Atom dual core)	2x iGb RJ45 Intel 82574L			
Ethernet ( Fan i-Core™)	2x iGb RJ45 Intel 82579/RTL8111			
VGA/DVI-D (Atom dual core)	1x / 1x (dimmiabale LCD backlit)			
VGA/DVI-D (Fan Intel® Core™)	1x / 1x			
Audio - PS2	1x Mic + Line in/out - Mouse/Keyboard			
C-Fast slot	1 x external accessible slot			
Mechanical Slot (optional)	1x PCIe x1 - 1x miniPCIe - 1x PCIe x16 - 1x PCI			
Drives - RAID 0/1	HDD min.500GB / SSD min. 16GB / C-Fast min. 4GB - Option			
Power Supply (Vdc)	18...30 (25W/15" basic)			
Consumption (W)	25 - 65			
Operating Temperature (°C)	-10 ... + 50 (non condensing)			
Storage Temperature (°C)	-20 ... + 65			
Humidity	85% (non condensing)			
External dimensions (W/H/D) (mm)	341x239x86	437x286x86	504x325x89	572x363x89
Cut-out dimensions (W/H) (mm)	326,0x227,0	422,5x271,5	486,5x307,5	554,5x345,5
Weight (kg)	4,5	6	8,5	10,5
Operating systems	WIN7 - WES7			
Protection degree (front)	IP66			
Certifications	CE - EN61000-6-2 / EN61000-6-4 / EN60068-2-6/27/30 / cULus (Certificate no. E189179) / EAC / Atex Group II - Category 3 G-D Zone 2/22			



## EW200 SLIM

Features	EW212	EW215	EW218	EW222
Display Size	12.1"	15.6"	18.5"	21.5"
Display Technology			TFT / 16.7 M	
Display Brightness (cd/m²)	400		300	
Contrast	1000	500	1000	5000
Viewing Angle	88/88/88/88	85/85/85/85	85/85/80/80	89/89/89/89
Display Resolution (pixel)	1280x800		1366x768	1920x1080
Backlight Life (hours)			50k	
Touch Technology			Resistive (5 wires) / Capacitive (PCT10 touches)	
Bezel/Chassis			Aluminum with PTFE non-sticking coating / Sheet Steel	
CPU Fanless Celeron			Celeron quad core J1900 2.0 GHz (2.42GHz) - 10W	
CPU Fanless Intel® Core™			Intel Core i3-4010U 1.7GHz / i7-4650U 1.7GHz (3.3GHz) - 15W	
Chipset			SoC	
GPU embedded Celeron J1900			HD Graphics	
GPU embedded i-core i3-4010U			HD Graphics 4400	
GPU embedded i-core i7-4650U			HD Graphics 5000	
RAM (Celeron core)			on board 4GB DDR3L 1066/1333MHz - dual channel	
RAM (Intel® Core™)			up to 8GB DDR3L_SODIMM 1333/1600MHz 204 pin - single channel	
RS232 / RS485			1x RS232 + 1x RS485	
USB Port IP66 front			1x - no capacitive -	
USB Ports 2.0/3.0 rear			1x 2.0 + 1x 3.0 CPU J1900 / 4x 3.0 CPU Intel® Core™	
VGA/DP (Celeron J1900)			1x / 1x (DP passive cable required)	
DP (i-Core™ i3/i7)			2x (DP active cable required)	
RAID 0/1			2x SSD on CPU i-core / 2x mSATA on CPU J1900	
Expansion Slot			1x miniPCIe CPU J1900 / 2x miniPCIe CPU i-core	
Drives externally accessible			HDD min. 500GB / SSD min. 16GB / CFast min. 4GB - Options	
Power Supply (Vdc)			15...36 (25W-15" basic)	
Operating Temperature (°C)			-10 ... +50 (non condensing)	
Storage Temperature (°C)			-20 ... +65	
Humidity			90% (non condensing)	
External dimensions (W/H/D) (mm)	341x239x64		437x286x64	504x325x67
Cut-out dimensions (W/H) (mm)	326.0x227.0		422.5x271.5	486.5x307.5
Weight (kg)	4.5	6	8.5	10.5
Operating Systems			WIN7 - WEST - WIN8.1	
Protection degree (front)			IP66	
Certifications	CE / EN61000-6-2 / EN61000-6-4 / EN60068-2-6 / EN60068-2-6/2/7/50 / cULus / EAC / ATEX Group II - Category 3 G-D Zone 2/22			



# Industrial PC Configuration Tool

ESA Automation has equipped its entire sales network with the ingenious PC Configuration Tool. As a result, after consultation with the customer, ESA Automation sales engineer can provide a "tailor-made" quotation that generates a unique IPC code. The whole process from initial customer contact to providing the quotation is quick, efficient and above all provides a detailed product specification for every customer request.



## Panel IPC

### Huge flexibility. Extreme durability.

ESA Automation XS7 industrial PC family offers a complete range of Panel PCs based on different CPUs: Intel iCore i3, i5 and i7, Intel Atom Dual Core and Intel Celeron Quad Core that can meet any automation requirement.

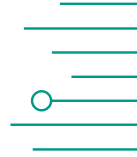
Precise design, quality components and mechanical strength, combined with configuration flexibility make XS7 the perfect IPC solution for harsh environments, including those with high concentrations of dust, severe vibrations or high temperatures.

These are XS7 Panel IPC main features:

- Wide choice of LCD size and touch screens from 7" wide up to 19"
- High configuration flexibility with HDD, SSD, mSATA/CFast, PCI/PCIe slot, CPU and RAM
- Elegant and precise industrial design, available with aluminum or INOX stainless steel finishing for the front bezel
- Removable HDD/SSD
- RAID function

## XS7 Industrial Panel Dynamic iCore

Features	XS712	XS715	XS717	XS719
Display Size	12.1" SVGA - 12.1" XGA	15"	17"	19"
Display Technology	TFT			
Display Colors	16.7 M			
Display Backlight	LED			
Backlight life (hours)	50K			
Display Resolution (pixel)	800x600 (SVGA) - 1024x768 (XGA)	1024 x 768	1280 x 1024	
Touch screen Type	Analog resistive (5 wires)			
CPU	Intel® Celeron B810 1.6GHz, Intel® Core i3-2330E 2.2 GHz, i5-2510E 2.5 GHz, i7-2710QE 2.1GHz			
Chipset	GM67PCH			
Graphics embedded	Intel HD Graphics - 3000			
DMI	DMI 5G1/S			
RAM	up to 16GB DDR3 SODIMM 204pin Dual Channel 1066/1333 MHz			
Hard disk/SSD (opt.)	min. 500 GB SATA 2.5" / SSD 16 GB			
Internal Compact Flash (opt.)	1 x			
External Compact Flash Slots (opt.)	1 x			
RS232 serial port	2 x			
RS485 serial port	1 x			
USB on front (2.0) iP66	1 x			
USB on rear (2.0)	4 x			
Green led on front	1 x			
PS/2 keyboard / mouse port	1 x			
PCI Slot 1 (opt.)	1 x			
PCI Slot 2 (opt.)	1 x			
PCIe slot 16x (opt.)	1 x			
Wi-Fi card (opt.)	PCIe			
Video port	1 x DVI-D + 1 x VGA			
Audio port	MIC IN + Line IN + Line OUT			
Ethernet ports RJ45	2 x Ethernet 10/100/1000 Mbit Intel 82579 - RTL 8111			
External (W x H x D) (mm)	336 x 256 x 81	425 x 300 x 85.5	446 x 346 x 84	508 x 384 x 92.5
Cut-out (W x H) (mm)	321 x 240	393 x 275	426 x 326	477 x 355
Back-up with battery	1 x			
Power supply (Vdc)	18...30 max 75 W	18...30 max 85 W	18...30 max 95 W	
Power consumption (W) (24 Vcc basic config - NO PCI CARDS)	48/58	55/65	67/77	
Protection level	IP 66 on front			
Operating temperature (°C)	0...+50 (non condensing)			
Storage temperature (°C)	-20...+65			
Humidity	90% (non condensing)			
Weight (kg)	- 5	- 6.5	- 9	- 11
Certifications	Atex (Group II - cat.3 G D) / Environment EN 60068-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4			
Optional kits				
RAID 2xHDD function	Yes			
Removable HDD/SSD	Yes			
DVD-RW Sata	External (opt.)			
Operating system	WIN7 - WES7 - XP Pro for Embedded			





## X5719 Industrial Panel PC Fanless Celeron

Features	X5712	X5715	X5717	X5719
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Display Size	12.1" SVGA - 12.1" XGA	15"	17"	19"
Display Technology	TFT			
Display Colors	16.7 M			
Display Backlight	LED			
Lamp life (min. at 25 °C)	50k			
Display Resolution (pixel)	800x600 (SVGA) - 1024x768 (XGA)	1024 x 768	1280 x 1024	1280 x 1024
Touch screen Type	Analog resistive (5 wires)			
CPU Fanless	Intel® Celeron Quad Core 2000 GHz J1900			
Chipset	SaC			
Graphics embedded	Intel® HD Graphics			
RAM	Up to 8GB DDR3L 1333 MHz SODIMM 204 pin			
Hard disk / SSD / mSATA (opt.)	min. 500 GB SATA 2.5" / SSD 16 GB / mSATA 32 GB			
CFast Internal (opt.)	1 x			
CFast Slots External (opt.)	1 x			
RS232 serial port	2 x			
RS485 serial port	1 x			
USB on front (2.0) IP66	1 x			
USB on rear (2.0/3.0)	3 x + 1 x (3.0)			
PCI Slot 1 (opt.)	1 x			
PCI Slot 2 (opt.)	1 x			
PCIe slot x1 (opt.)	1 x			
Wi-Fi card (opt.)	PCI / USB / PCIe 1x			
Video port	1xVGA + 1x DVI-D (single-link digital signal only)			
Audio port	MIC IN + Line OUT			
Ethernet ports RJ45	2 x Ethernet 10/100/1000 Mbit Intel I210			
External Dimensions (WxHxD) (mm)	336 x 256 x 81	425 x 300 x 85.5	446 x 346 x 84	508 x 384 x 92.5
Cut-out Dimensions (WxH) (mm)	321 x 240	393 x 275	426 x 326	477 x 355
Back-up with battery	1 x			
Power supply (Vdc)	18...30 max 75W	18...30 max 85 W	18...30 max 95 W	18...30 max 95 W
Power consumption (W) (24 Vcc basic config - NO PCI CARDS)	36	43		55
Protection level	IP 66 on front			
Operating temperature (°C)	0...+50 (non condensing)			
Storage temperature (°C)	-20...+65			
Humidity	90% (non condensing)			
Weight (kg)	- 5	- 6.5	- 9	- 11
Certifications	CE, ATEX (Group II - cat.3 G D) / Environment EN 60068-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4			

### Optional kits

RAID 2xHDD function	Option
Removable HDD/SSD	Option
DVD-RW SATA	External (opt.) Internal
Operating system	WIN7 - WES7 - WIN8.1

## X5719 Industrial Panel PC Fanless Atom

Features	X57W7	X5708	X5712	X5715	X5717	X5719
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Display Size	7" Wide	8.4"	12.1" SVGA - 12.1" XGA	15"	17"	19"
Display Technology	TFT		TFT			
Display Colors	16.7 M		16.7 M			
Display Backlight	LED		LED			
Lamp life (min. at 25 °C)	50k		50k			
Display Resolution (pixel)	800x600	800x600 (SVGA) - 1024x768 (XGA)	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024
Touch screen Type	Analog resistive (4 wires)		Analog resistive (5 wires)			
CPU Fanless	Intel® ATOM 16GHz N270	Intel® ATOM 16GHz N270	Intel® ATOM Dual Core 186 GHz N2800			
Chipset	945GSE + ICH7M		NM10			
Graphics	Intel® GMA 950	Intel® GMA 950	Intel® GMA 3650			
FSB	533 MHz		DMI2.5 GT/s			
RAM	up to 2GB DDR2 SODIMM 200pin		Up to 4GB DDR3 SODIMM 204 pin			
Hard disk / SSD (optional)			min. 500 GB SATA 2.5" / SSD 16 GB			
Compact Flash Slots Internal (opt.)	1 x		1 x			
Compact Flash Slots External (opt.)	1 x		1 x			
RS232 serial port	1 x		2 x			
RS485 serial port	1 x		1 x			
USB on front (2.0) IP66	1 x		1 x			
USB on rear (2.0)	2 x		4 x			
Green led on front	1 x		1 x			
PCI Slot 1 (opt.)	-	-	1 x			
PCI Slot 2 (opt.)	-	-	1 x			
Mini PCIe slot	internal 1 x		-			
PCIe slot x1 (opt.)	-	-	1 x			
Wi-Fi card (opt.)	Wi-Fi miniPCI / USB		PCI / USB / PCIe 1x			
Video port	1 x VGA		1xVGA + 1x DVI-I (single-link digital signal only)			
Audio port	-	-	Line-in + Line-out + Mic-in			
Ethernet ports RJ45	2 x Ethernet 10/100/1000 Mbit Intel 82574		2 x Ethernet 10/100/1000 Mbit Intel 82574			
External Dimensions (WxHxD) (mm)	228 x 155 x 80	250 x 190 x 80	336 x 256 x 81	425 x 300 x 85.5	446 x 346 x 84	508 x 384 x 92.5
Cut-out (WxH) (mm)	219 x 145	241 x 180	321 x 240	393 x 275	426 x 326	477 x 355
Back-up with battery	1 x		1 x			
Power supply (Vdc)	18...30 max 50 W		18...30 max 75W	18...30 max 85 W	18...30 max 95 W	18...30 max 95 W
Power consumption (W) (24 Vcc basic config - NO PCI CARDS)	30		36	43		55
Protection level	IP 66 on front		IP 66 on front			
Operating temperature (°C)	0...+50 (non condensing)		0...+50 (non condensing)			
Storage temperature (°C)	-20...+65		-20...+65			
Humidity	90% (non condensing)		90% (non condensing)			
Weight (kg)	- 2.5	- 3	- 5	- 6.5	- 9	- 11
Certifications	CE, ATEX (Group II - cat.3 G D) / Environment EN 60065-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4					

### Optional kits

RAID 2xHDD function	-	Yes
Removable HDD/SSD	-	Yes
DVD-RW SATA	External (opt.) XP Pro SP3 MUJ - CE	Internal (opt.) XP Pro SP3 MUJ - WIN7 - WES7
Operating system	WIN7 - WES7 - WES2009 - Win7 - XP Pro SP3 MUJ - CE	WES2009 - Win7 - XP Pro SP3 MUJ - WIN7 - WES7





## Stainless Steel Panel IPC

### Extreme durability. High endurance.

ESA Automation X57 industrial PC family is also available with bezel in Stainless Steel.

The X57 INOX V2A stainless steel products conform to FDA 21 / EN1672-2 a meeting Food Processing, Pharma and Chemical industry safety and hygiene requirements.

ESA Automation's X57 industrial PCs are designed, built and tested to ATEX (Zone 2/22, category 3 G/D) and EN60068-2-6/27/30 enabling these robust units to safely withstand vibration, shock and humidity expected in these severe environments.



Outward inclined INOX surface to prevent bacterial or microbial loads from depositing.

**True-flat** touch screen offers hygienic prevention and easy cleaning.

These are X57 stainless steel Panel IPC main features:

- Wide choice of LCD size and touch screens from 7" wide up to 19"
- High configuration flexibility with HDD, SSD, mSATA/CFast, PCI/PCIe slot, CPU and RAM
- Elegant and precise industrial design, available with aluminum or INOX stainless steel finishing for the front bezel
- True-flat touch screen front bezel
- Removable HDD/SSD
- RAID function

## X57 Panel Dynamic iCore Stainless Steel

### Features

X5712 X5715 X5717

Display Size	12,1" SVGA - 12,1" XGA	15"	17"
True-flat Touch screen	No LED/USB frontal		
Display Technology	TFT		
Display Colors	16.7 M		
Display Backlight	LED		
Life (min. at 25 °C)	50k		
Display Resolution (pixel)	800x600 (SVGA) - 1024x768 (XGA)	1024 x 768	1280 x 1024
Touch screen Type	Analog resistive (5 wires)		
CPU	Intel® Celeron B810, 1.6GHz, Intel® Core i3-2330E 2.2 GHz, i5-2510E 2.5 GHz, i7-2710QE 2.1GHz		
Chipset	QM67PCH		
Graphics embedded	Intel HD Graphics - 3000		
DMI	DMI 5GT/S		
RAM	up to 16GB DDR3 SODIMM 204pin Dual Channel 1066/1333 MHz		
Hard disk/SSD (opt.)	min. 500 GB SATA 2.5" / SSD 16 GB		
Internal Compact Flash (opt.)	1 x		
External Compact Flash Slots (opt.)	1 x		
RS232 serial port	2 x		
RS485 serial port	1 x		
USB on rear (2.0)	4 x		
Green led on front	1 x		
PS/2 keyboard / mouse port	1 x		
PCI Slot 1 (opt.)	1 x		
PCI Slot 2 (opt.)	1 x		
PCIe slot 16x (opt.)	1 x		
Wi-Fi card (opt.)	PCIe		
Video port	1 x DVI-D + 1 x VGA		
Audio port	MIC IN + Line IN + Line OUT		
Ethernet ports RJ45	2 x Ethernet 10/100/1000 Mbit Intel 82579 - RTL 8111		
External (W x H x D) (mm)	336 x 256 x 81	425 x 300 x 85.5	446 x 346 x 84
Cut-out (W x H) (mm)	321 x 240	393 x 275	477 x 355
Back-up with battery	1 x		
Power supply (Vdc)	18...30 max 75 W	18...30 max 85 W	18...30 max 95 W
Power consumption (W) (24 Vcc basic config - NO PCI CARDS)	48/68	55/65	67/77
Protection level	IP 66 on front		
Operating temperature (°C)	0...+50 (non condensing)		
Storage temperature (°C)	-20...+65		
Humidity	90% (non condensing)		
Weight (kg)	5	6.5	11
Certifications	ATEX (Group II - cat.3 G D) / Environment EN 60068-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4		
Optional kits			
RAID 2xHDD function	Yes		
Removable HDD/SSD	Yes		
DVD-RW Sata	External (opt.)		
Operating system	WIN7 - WES7 - XP Pro for Embedded		

## XS7 Panel PC Fanless Atom Stainless Steel

Features	XS7W7	XS7T2	XS7T5	XS7T9
Display Size	7" Wide	12.1" SVGA - 12.1" XGA	15"	19"
True-flat Touch screen		No LED/USB frontal		
Display Technology		TFT		
Display Colors		16,7 M		
Display Backlight		LED		
Lamp life (min. at 25 °C)		50k		
Display Resolution (pixel)	800x600	800x600 (SVGA) / 1024x768 (XGA)	1024 x 768	1280 x 1024
Touch screen Type	Analog resistive (4-wires)		Analog resistive (5-wires)	
CPU Fanless	Intel® ATOM 1.6GHz N270	Intel® ATOM Dual Core 1.86 GHz N2800		
Chipset	945GSE + ICH7M		NMIO	
Graphics	Intel® GMA 950	Intel® GMA 3650		
FSB	533 MHz	DMI 2.5 GT/s		
RAM	up to 2GB DDR2 SODIMM 200pin	up to 4GB DDR3 SODIMM 204 pin		
Hard disk / SSD (opt.)		min. 500 GB SATA 2.5" / SSD 16 GB		
Compact Flash Slots Internal (opt.)		1x		
Compact Flash Slots External (opt.)		1x		
RS232 serial port	1x		2x	
RS485 serial port		1x		
USB on rear (2.0)	2x		4x	
Green led on front		1x		
PCI Slot 1 (opt.)	-		1x	
PCI Slot 2 (opt.)	-		1x	
Mini PCIe slot	internal 1x		-	
PCIe slot x1 (opt.)	-		1x	
Wi-Fi card (opt.)	Wi-Fi miniPCI / USB	PCI / USB / PCIe 1x		
Video port	1x VGA	1xVGA + 1x DVI-I (single-link digital signal only)		
Audio port	-	Line-in + Line-out + Mic-in		
Ethernet ports RJ45		2 x Ethernet 10/100/1000 Mbit Intel 82574		
External (WxHxD) (mm)	228 x 155 x 80	336 x 256 x 81	425 x 300 x 85.5	508 x 384 x 92.5
Cut-out (WxH) (mm)	219 x 145	321 x 240	393 x 275	477 x 355
Back-up with battery		1x		
Power supply (Vdc)	18...30 max 50 W	18...30 max 75W	18...30 max 85 W	18...30 max 95 W
Power consumption (W) (24 Vdc basic config - NO PCI CARDS)	30	36	43	55
Protection level		IP 66 on front		
Operating temperature (°C)		0...+50 (non condensing)		
Storage temperature (°C)		-20...+65		
Humidity		90% (non condensing)		
Weight (kg)	- 2.5	- 5	- 6.5	- 11
Certifications	CE, Atex (Group II - cat.3 G D) / Environment EN 60068-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4			

### Optional kits

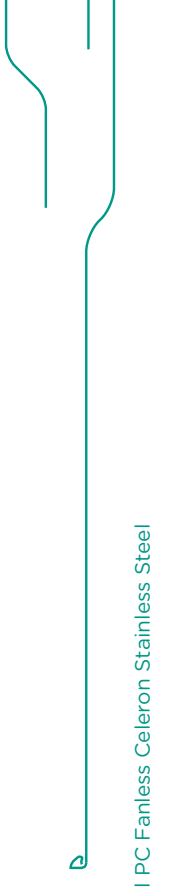
RAID 2xHDD function	-	Yes
Removable HDD/SSD	-	Yes
DVD-RW Sata	-	Internal (opt.)
Operating system	WIN7 - WES7 - WES2009 - Win* XP Pro SP3 MUJ - CE	WES2009 - Win* XP Pro SP3 MUJ - WIN7 - WES7

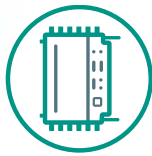
## XS7 Panel PC Fanless Celeron Stainless Steel

Features	XS7T2	XS7T5	XS7T9
Display Size	12.1" SVGA - 12.1" XGA	15"	19"
True-flat Touch screen		No LED/USB frontal	
Display Technology		TFT	
Display Colors		16,7 M	
Display Backlight		LED	
Lamp life (min. at 25 °C)		50k	
Display Resolution (pixel)	800x600 (SVGA) - 1024x768 (XGA)	1024 x 768	1280 x 1024
Touch screen Type		Analog resistive (5-wires)	
CPU Fanless	Intel® Celeron Quad Core 2,00 GHz J1900		
Chipset		Soc	
Graphics embedded		Intel® HD Graphics	
RAM		Up to 8GB DDR3L 1333 MHz SODIMM 204 pin	
Hard disk / SSD / mSATA (opt.)		min. 500 GB SATA 2.5" / SSD 16 GB / mSATA 32 GB	
CFAST Internal (opt.)		1x	
CFAST Slots External (opt.)		1x	
RS232 serial port		2x	
RS485 serial port		1x	
USB on rear (2.0/3.0)		3 x + 1x (3.0)	
PCI Slot 1 (opt.)		1x	
PCI Slot 2 (opt.)		1x	
PCIe slot x1 (opt.)		1x	
Wi-Fi card (opt.)		PCI / USB / PCIe 1x	
Video port		1xVGA + 1x DVI-D (single-link digital signal only)	
Audio port		MIC IN + Line OUT	
Ethernet ports RJ45		2 x Ethernet 10/100/1000 Mbit Intel I210	
External (WxHxD) (mm)	336 x 256 x 81	425 x 300 x 85.5	508 x 384 x 92.5
Cut-out (WxH) (mm)	321 x 240	393 x 275	477 x 355
Back-up with battery		1x	
Power supply	18...30 Vcc max 75W	18...30 Vcc max 85 W	18...30 Vcc max 95 W
Back-up with battery		1x	
Power supply (Vdc)	18...30 max 75 W	18...30 max 85 W	18...30 max 95 W
Protection level		IP 66 on front	
Power consumption (W) (24 Vdc basic config - NO PCI CARDS)		36	43
Operating temperature (°C)		0...+50 (non condensing)	
Storage temperature (°C)		-20...+65	
Humidity		90% (non condensing)	
Weight (kg)		- 5	- 6.5
Certifications		CE, Atex (Group II - cat.3 G D) / Environment EN 60068-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4	

### Optional kits

RAID 2xHDD function		Option
Removable HDD/SSD		Option
DVD-RW Sata	External (opt.)	Internal
Operating system	External (opt.)	WIN7 - WES7 - WIN 81





## Esaware Box IPC

### Rugged design. Expandable technology.

The new Box IPC range that fulfills even the toughest industrial requirements. Esaware EW400 rugged Box IPCs have been designed for harsh industrial environments.

The EW400 series is particularly suited when thermal shocks and critical temperature conditions are required, -20 / +60 °C .

These are EW400 Rugged main features:

- Fanless design
- Rugged structure
- A technologically advanced heat dissipation system and operating Temperature between -20 and + 60°C
- Heat-pipe cooling: an efficient active cooling system that allows the device to maintain superior computing performances without CPU throttling even in high temperature environments
- Up to CPU i7 quad core
- Equipped with the state-of-the-art I/F: USB 3.0, CFast, PCIe/PCI expansions



Side A - Detail of CFast slot , serial ports and main power push button switch. APO or ATX selection.



Side B - Huge I/F capability towards the field, 3 display ports , 4 USB 3.0 , 2 independent LAN ports.

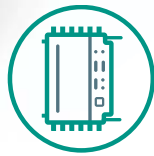


#### Features

#### EW400 Atom

#### EW400 Intel Core

Aluminium Enclosure	Heavy duty steel chassis Selection ATX/APO via Bios On/Off push-button LED red HDD	Aluminium heat-sink with Heat-Pipe thermal system
CPU Fanless	Atom Dual Core D2550, 1.86 GHz	Intel Core i3-320ME 2.4GHz Intel Core i7-3610QE Quad 2.35GHz
Chipset	NM10 DMI 2.3GT/s	QM77 DMI 5GT/s
GPU embedded	GMA3650 min.640 MHz	HD Graphics 4000 650/1000 MHz
RAM	2GB RAM up to 16GB DDR3	4GB RAM up to 16GB DDR3 SOD/MM 204-pin 1333 MHz
I/F	2 x RS232/422/485 Sub-D 9 pin 3 x RS485 Sub-D 9 pin 6 x USB ver2.0 2 x Ethernet Intel 82574L 1 x mini-PCIe slot 1 x VGA 1 x DVI-D 1 x Line Out / Mic In 1 x CFast slot external access	2 x RS232/422/485 Sub-D 9 pin 3 x RS485 Sub-D 9 pin 4 x USB ver. 3.0 2 x Ethernet 1 Gbit RJ45 - Intel 82579/82574L 1 x mini-PCIe slot 1 x DVI-D 1 x HDMI 1 x Line Out / Mic In 1 x CFast slot external access
Drives	HDD min. 500GB/SSD min. 16GB/CFast min. 4GB	HDD min. 500GB/SSD min. 16GB/CFast min. 4GB [RAID 0+ optional]
Mechanical slot (opt.)	-	2 x slot (1xPCIe x1 + 1PCI)
Operating Temperature (°C)	-20...+ 60 (non condensing)	-20 ... + 65
Storage Temperature (°C)	<90% (non condensing)	<90% (non condensing)
Humidity	3	4.5/6 (0/2 slot ver.)
Weight (kg)	9...26 - 22W (2GB + HDD)	9...26 - 45W (3 - 4GB+HDD)
Power supply (Vdc)	299x216x59	337x239x77 / 337x239x122 (0/2 slot ver.)
Dimensions (W/H/D) (mm)	WIN7 - WE57	
Operating Systems	IP20	
Protection degree	CE / EN61000-6-2 / EN61000-6-4 / EAC	
Certifications		



## Esaware Box IPC

### Compact design. Multi-connectivity.

Esaware EW410 Box IPC series offers a multi-functions compact version designed for industrial applications. EW410 thanks to its compactness and the variety of I/F can be used in any industrial or professional application. By means of lateral fixing plates or DIN-RAIL mount accessory, EW410 can be easily installed directly into the machine or positioned inside the electrical cabinet.

These are EW410 Compact main features:

- Fanless design
- High performances in a compact size
- Multi I/F to communicate with the field
- Serial, USB, ETH, and mini PCIe slot to support mSATA, 3G and Wi-Fi cards.
- An elegant and functional design with aluminum heat-sink for highly efficient passive heat dissipation
- Dual monitor control function.



Detail of I/F ports.  
2 independent LANs  
4 USB 2.0  
2 multi serial ports  
Main push button switch



Full covered with aluminum heat-sink for optimal conventional heat dissipation.

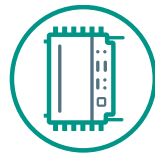


#### Features

EW410

<b>Aluminium Enclosure</b>	Heavy alu extrusion chassis Aluminum heat-sink LED indicator Selection ATX/APO via Bios On/Off push-button LED blue HDD Lockable power connector
<b>CPU Fanless</b>	Atom Dual Core D2550 1.86 GHz
<b>Chipset</b>	NM10 DMI 2.5GT/s
<b>GPU embedded</b>	GMA3650 1920x1200 max. resolution
<b>RAM</b>	RAM 2GB DDR3 1066 MHz on board
<b>I/F</b>	2 x RS232/422/485 Sub-D 9 pin 4 USB 2.0 1 x SIM slot 2 x Ethernet 1 Gbit RJ45 - Intel 82574L 3 x MiniPCIe slot (1 x mSATA) 1 x Link Local / Mic In 1 x Link Local / Mic In 1 x CFast slot external access
<b>Drives</b>	CFast/mSATA
<b>Operating Temperature (°C)</b>	0...+60 (non condensing)
<b>Storage Temperature (°C)</b>	-40...+80
<b>Humidity</b>	85% (non condensing)
<b>Weight (kg)</b>	0.7
<b>Power supply (Vdc)</b>	9 ... 26 - max 20W
<b>Dimensions (W/H/D) (mm)</b>	161x108x32
<b>Operating Systems</b>	WIN7 - WES7 - WES2009
<b>Protection degree</b>	IP20
<b>Certifications</b>	CE - EN61000-6-2 / EN61000-6-4 / EAC





## Box IPC

### Endurance and reliability

XB300 industrial BOX PC family offers a complete range of products able to fully satisfy any automation requirement. XB300 industrial BOX PC range gives the maximum power to your applications thanks to the possibility to choose between several CPUs of series Intel® Core™ and Core 2 Duo, Celeron B810, Celeron Core Duo T3100, Intel Core2Duo P8400, Intel Atom N270, with or without slots, 2 or 3 PCI/PCIe on board. XB300 BOX PC range has a modular architecture in order to best exploit the potential of Intel CPUs, ensuring both low energy consumption and high performance.

XB300's aluminum finned cover also permits a quick heat dissipation generated from the internal motherboard components.

#### These are XB300 main features:

- Wide choice of configurations with/without PCI slot, 2 or 3 PCI/PCIe
- High configuration flexibility with modular HDD/SSD/PCI slot, CPU and RAM
- Removable HDD/SSD
- RAID function
- Industrial design that can meet any automation requirement
- Low energy consumption thanks to the aluminum finned cover that permits a quick heat dissipation
- Easy installation and maintenance on cabinets or on a side of the machine



Features	XB300 Atom 2PCI	XB300 3 Slot iCore	XB300 0PCI Celeron/ C2D	XB300 2PCI Celeron/ C2D	XB300 3PCI Celeron/ C2D
CPU Fanless	Intel Atom N270 1.6 GHz	Intel® Core i3-3120ME 2.4 GHz, i5-3570ME 2.7 GHz, Core i580 1.6 GHz	Intel® Celeron Core Duo T3100 1.9 GHz Intel® Core2Duo P8400 2.66 GHz		
Chipset	945GSE+ICH7M	QM77	GM45+ICH9M		
FSB	533 MHz	DMI 5GT/s	800/1066 MHz		
RAM	up to 2 GB DDR2	up to 16 GB DDR3	up to 8 GB DDR3		
Hard disk / SSD (opt.)	min. 500 GB 2.5" SATA / SSD 16 GB	min. 500 GB 2.5" SATA / SSD 16 GB	min. 500 GB 2.5" SATA / SSD 16 GB		
Compact flash slot External access	1 x	1 x	1 x		
RS232 serial port	2 x	2 x	2 x		
RS485 serial port	-	2 x	-		
USB ports (2.0) - (3.0)	4 x	2x / 6x	4 x		
Power ON green LED frontal	1 x	1 x	1 x		
HDD rfid lid	1 x	1 x	1 x		
ATX/APO selector	1 x	via software	1 x		
PS/2 keyboard / mouse	1 x	USB	1 x		
1 Slot (opt.)	1x PCI	1x PCI	2 x PCI		3 x PCI
2 Slot (opt.)	1x PCI	1x PCIe x8	2 x PCI		3 x PCI
3 Slot (opt.)	-	1x PCIe x8	2 x PCI		3 x PCI
Wi-Fi card (opt.)	Internal USB / PCI	Internal USB / PCI	Internal USB / PCI		
Video port	1 x VGA + 1 x DVI-I (single-link digital signal only)	1 x DVI-I (single-link) + 1 x HDMI	1 x VGA + 1 x DVI-I (single-link digital signal only)		
Audio port	MIC IN + Line IN + Line OUT	MIC IN + Line OUT	MIC IN + Line IN + Line OUT		
Ethernet ports RJ45	2 x Ethernet 10/100/1000 Mbit RTL 8111C	2 x Ethernet 10/100/1000 Mbit RTL 82574	2 x Ethernet 10/100/1000 Mbit RTL 8111C		
External (W x H x D) (mm)	195 x 268 x 125	195 x 268 x 146	195 x 268 x 125		195 x 268 x 146
Back-up with battery	1 x	1 x	1 x		
Power supply (Wdc)	11.32 - max 95 W	11.32 - max 95 W	11.32 - max 95 W		
Power consumption (W) (40 °C, basic config, no PCI-CARDs)	30	42/54	54/42		
Protection level					
Weight (kg)	5	5.5	4.5	5	5.5
Operating temperature (°C)			0 - +50 (non condensing)		
Storage temperature (°C)			-20...+60		
Humidity			85% (non condensing)		
Certifications			CE, Immunity EN 61000-6-2 / Emissions 61000-6-4		
Optional kits					
RAID 2xHDD function	1 x				
Removable HDD/SSD (opt.)	1 x				
Operating system		WIN7 - WES2009 - Win7 XP Pro SP3 MUJ			



## VESA IPC Overcoming space

15" Industrial Touch PC for VESA mount.

The VESA industrial PC is the ideal solution to overcome constraints caused by limited space for the installation of a Panel PC on a machine. The VESA XV715 PC can be easily orientated to fit the different operational requirements in an area giving the operator maximum freedom of movement in the workspace.

Simply and quickly mounted via its VESA 75/100 attachment the XV715, from ESA Automation, is powered by an Intel® ATOM N2800 Fanless third generation Intel® Atom Dual Core microprocessor. It comes with a white LED backlight 15" LCD touchscreen and is highly configurable with HDD, SSD, CF and RAM options. Built for industry the XV7 has an IP66 front panel and an IP54 robust steel rear casing, the PC's modern design allows for ease of maintenance and access to removable HDD, SSD and CF.

VESA XV715 can be ordered with the following operating systems: WIN7, WES7, WES 2009, XP pro for Embedded.

## XV7 VESA IPC Fanless

Features

X5715

Display Size	15"
Display Technology	TFT
Display Colors	262 K
Display Backlight	LED
Life (min. at 25 °C)	50k
Display Resolution (pixel)	1024 x 768
Touch screen Type	Analog resistive (5 wires)
CPU Fanless	Intel® ATOM Dual Core N2800 1.86 GHz
Chipset	Intel® NM10
Graphics embedded	Intel® GMA 3650
DMI	2.5 GT/s
RAM	up to 4 GB DDR3 DIMM 204 pin
Removable HDD / SSD / mSATA (opt.)	min. 500 GB SATA 2.5" / SSD 16 GB / mSATA 32GB
Compact Flash Slot Internal (opt.)	1 x
Compact Flash Slot External (opt.)	1 x
RS232 serial port	1 x
RS485 serial port	1 x
USB on front (2.0) IP66	2 x
Green led on front	1 x
Mini PCIe	1 x
Wi-fi card (opt.)	miniPCIe 1 x
Video port	1 x VGA
Ethernet port RJ45	2 x Ethernet 10/100/1000 Mbit Intel 82574
External (WxHxD) (mm)	425 x 300 x 77 (mm)
Cut-out (WxH) (mm)	-
Back-up with battery	1 x
Power supply (Vdc)	18...30 max 85 W
Power consumption (W) (24 Vdc - basic config)	43
Protection level	IP 66 on front / IP54 on rear
Operating temperature (°C)	0...+50 (non condensing)
Storage temperature (°C)	-20...+65
Humidity	90% (non condensing)
Weight (kg)	75
Certifications	CE, Environment EN 60068-2-6/27/30 / Immunity EN 61000-6-2 / Emissions 61000-6-4
Operating system	WIN7 - WES7 - WES 2009 - XP Pro for Embedded



VESA

VESA



## Esaware Industrial Monitor

Innovative design. Elegant technology.

With the EW300 series, Esaware offers a wide range of industrial monitors that combine innovative and elegant design with the highest industrial engineering standards. EW300 Industrial Monitors have been designed to ensure high performance and durable reliability in harshest industrial environments.

All EW300 monitors share the same well designed bezel as the EW200 Panel IPCs.



Detail of true-flat touch screen along with twisted aluminum bezel and ATEX IP66 frontal USB port.



Our unique Twist design and the PTFE non-stick coating prevent dust and dirt accumulation on the bezel.

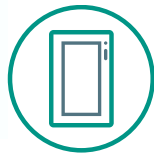
The main features of EW300 Industrial Monitors are:

- LCD wide screen
- Resistive or capacitive touchscreen
- Multi Video Inputs
- Multi touchscreen outputs.
- Reduced depth



### Features

	EW312	EW315	EW318	EW322
Display Size	12.1"	15.6"	18.5"	21.5"
Display Technology			TFT	
Display Colors			16.7M	
Display Brightness (cd/m²)	400		300	
Contrast	1000	500	1000	5000
Viewing Angle	88/88/88/88	85/85/80/80	85/85/80/80	89/89/89/89
Display Resolution (pixel)	1280x800		1366x768	1920x1080
Backlight life (hours)			50k	
Touch Technology			Resistive (5 wires) / Capacitive (PCT 10 touches)	
Bezel /Chassis			Aluminum - PTFE no-sticking coating / Sheet Steel	
Front USB			1x USB 2.0 type A - rear 1x USB type B	
Rear touch outputs			1x USB 2.0 type B + 1x RS232 sub-din 9pins	
Video input			DVI-D + VGA	
Power Supply (Vdc)			18...30	
Operating Temperature (°C)			0 ... + 50 (non condensing)	
Storage Temperature (°C)			-20 ... + 65	
Humidity			<85% (non condensing)	
External dimensions (W/H/D) (mm)	341x239x58	437x286x58	504x325x61	572x363x61
Cut-out dimensions (W/H) (mm)	326,0x227,0	422,5x271,5	486,5x307,5	554,5x345,5
Weight (kg)	3.5	5	7.5	9.5
Protection degree (front)			IP66	
Certifications	CE - EN61000-6-2 / EN61000-6-4 / EN60068-2-6/27/30 / ATEX Group II - Category 3 G-D Zone 2/22			



## Industrial Monitor Endurance and reliability

The ESA Automation XM7 series offers a complete range of Industrial Monitors.

Affordable, complete, elegant, reliable, versatile: XM7 industrial monitors family represents the perfect solution for any automation requirement, from industrial to building automation and security to utility. The XM7 provides flexible, display, control and connectivity to any category of system.

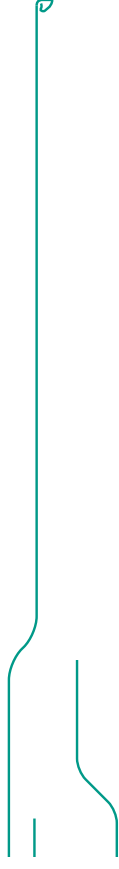
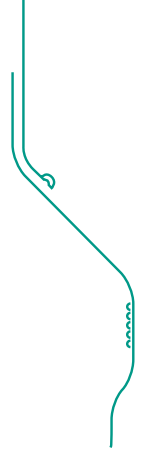
Precise design, use of high quality components, extreme mechanical sturdiness,

The rugged 6mm aluminum or INOX bezel make XM7 suitable for all harsh environments such as those with high concentrations of dust, intense vibrations or high temperatures.

The XM7 aluminum series are designed, built and tested to comply with the ATEX Directives: (Zone 2/22, category 3 G/D) and EN60068-2-6/27/30 enabling these robust units to safely withstand vibration, shock and humidity expected in these severe environments.

### Main features of XM7 series:

- Wide choice of LCD and touch screens, from 7" wide up to 19" LCD 4:3 with LED backlight
- Multi inputs for video signals.
- Multi outputs for touch screen
- Elegant and meticulous industrial design
- Front bezel in aluminum finishing.
- INOX bezel fitted with true flat touch screen
- Frontal USB on aluminum version.
- IP66 protection degree



Features	XM7W7	XM7O8	XM7I2	XM7I5	XM7I7	XM7I9
Display Size	7" Wide	8.4"	12.1"	15"	17"	19"
Bezel aluminium			6mm thickness			
Technology		TFT 262 K colors		TFT 16.2 M colors		TFT 16.7 M colors
Display Backlight			LED			
Brightness cd/m2	500	450	370	350	380	400
Contrast		600:1		700:1		1000:1
Viewing angle H-V	70-60	75-75	140-120			170-170
Lamp life (min a 25°C)			50K			
Resolution (pixel)	800 x 480	800 x 600	1024 x 768			1280 x 1024
Touch technology		Analog resistive (4 wires)		Analog resistive (5 wires)		
Touch output			RS232 + USB			
USB frontal IP66 / USB rear (2.0)			1 x			
Green Led Power ON			1 x			
VGA/DVI+ /S-Video/Video composite			1 x (C digital signal only single-link)			
External (WxHxD)	228 x 155 x 66,7	250 x 190 x 66,7	336 x 256 x 56,7	425 x 300 x 57,2	446 x 346 x 59,7	508 x 384 x 64,2
Cut-out (WxH)	219 x 145	241 x 180	321 x 240	393 x 275	426 x 326	477 x 353
Power supply (Vdc)			18...30 max 50W			
Power consumption (W)		30		35		45
Protection degree			IP66 front			
Operating temperature (°C)			0...50 (non condensing)			
Storage temperature (°C)			-20...+65			
Humidity			90% (non condensing)			90
Weight (kg)	2.2	2.6	4.0	6.0	7.5	
Certifications		CE, Atex (Group II - cat.3 G D), Environmental EN60068-2-6/27/30, Immunity EN61000-6-2 / Emission EN 61000-6-4				







## Stainless Steel Industrial Monitor

### Extreme durability. High endurance.

The ESA Automation XM7 series is available with Stainless steel front bezel. The rugged 6mm INOX bezel makes XM7 suitable for all harsh environments such as those with high concentrations of dust, intense vibrations or high temperatures. INOX V2A stainless steel products are particularly suited for environments where compliance with health and hygiene norms are required. The bezel made of INOX stainless steel includes the true-flat resistive touch screen.

The XM7 INOX series conforms to FDA 21 / EN1672-2 and they are the optimal solution for Food, Pharmaceutical and Chemical industries.

The XM7 INOX series is equipped with a true-flat resistive touch screen meeting Food Processing, Pharma and Chemical industry safety and hygiene requirements.

The XM7 INOX V2A stainless steel are designed, built and tested to comply with the ATEX Directives. (Zone 2/22, category 3 G/D) and EN60068-2-6/27/30 enabling these robust units to safely withstand vibration, shock and humidity expected in these severe environments.

Main features of XM7 INOX V2A stainless steel series:

- Wide choice of LCD and touch screens, from 7" wide up to 19"
- LCD 4:3 with LED backlight
- Multi inputs for video signals
- Multi outputs for touch screen
- Elegant and meticulous industrial design
- Bezel available in INOX stainless steel finish with TRUE FLAT touch screen
- IP69K protection degree on 7" and 12,1"
- IP66 protection degree on 15" and 19"

#### Features

	XM7W7	XM7I2	XM7I5	XM7I9
Display Size	7" Wide	12,1"	15"	19"
Bezel InOX V2A	6mm thickness			
Technology	TFT 262 K colors			
Display Backlight	LED			
Brightness cd/m2	500	370	350	400
Contrast	600:1			
Viewing angle H-V	70-60			
Lamp life (min a 25°C)	140-120			
Resolution (pixel)	50K			
Touch technology	800 x 480			
Touch output	Analog resistive true flat (4 wires)			
USB front IP66 / USB rear (20)	Analog resistive true flat (5 wires)			
Green Led Power ON	RS232 + USB			
VGA/DVI-I /S-Video/Video composite	None			
External (WxHxD)	None			
Cut-out (WxH)	228 x 155 x 66,7	336 x 256 x 56,7	425 x 300 x 57,2	508 x 384 x 64,2
Power supply (Vdc)	219 x 145	321 x 240	393 x 275	477 x 353
Power consumption (W)	18...30 max 50W			
Protection degree	30			
Operating temperature (°C)	IP69K front 7" / 12,1" - IP66 front 15" / 19"			
Storage temperature (°C)	0...50 (non condensing)			
Humidity	-20...+65			
Weight (Kg)	90% (non condensing)			
Certifications	3.0	5.0	7.0	10.5
	CE, ATEX (Group II - cat.3 G.D), Environmental EN60068-2-6/27/30, Immunity EN61000-6-2 / Emission EN 61000-6-4			



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## Energy Management

Focus your energy.



ESA Automation SMART METER technological platform continuously monitors and records energy consumption (Electricity, gas, water, etc.) providing the data which give any organization the insight to make energy improvement decisions based on knowledge and not speculation. Just connect the cts and go.

The pre-installed Software on the Data Manager performs all the functions of an advanced Energy Management System from acquisition of consumption data and the secure access to the historical data to the remote control via VPN of smart meter networks.

This new approach, exploiting the IOT (Internet of Things) paradigm, moves the intelligence to the distributed sensors (EW800 smart meter). Each individual sensor makes its information to be available to the data manager (EW900 data manager) which publishes the accumulated data using FREE HTML5 web pages which can be displayed on anything from a smartphone or tablet up to a pc.

The use of wireless infrastructures (RF868, 3G, 4G, Wi-Fi) and a distributed modular system gives ESAs EMS both low entry costs and low total cost of ownership.

### SMART METERS EW800

ESA Automations EW800 Smart Meters are the building blocks of a modular energy monitoring system, providing accurate energy consumption figures in order to deliver distributed analysis of energy usage profiles. In addition to the measurement of standard energy values, the EW800 provides the appropriate quality parameters of the supply network. Up to 250 EW800 smart meters can be controlled one EW900 Data Manager.



### Data Manager EW900

Esa Automation's EW900 compact Data Manager is capable of acquiring and managing consumption data (Electric, Gas, Water, etc.) from up to 250 measurement points (DEM, DTM, DRM). EW900 hardware options include up to 5 LANs, Wi-Fi, 3G mobile, wireless 868MHz, USB port and 3 digital in-3 digital out. All EW900 products come with the pre-installed Energyaware software, for easy management via standard browser, including real time visualization of all collected data, with advanced graphics.



### Accessories EW8ET

Current Transformers - Rogowski Coil Sensors -Voltage Transformers for usage with EW800B (DTM) and EW800C (DRM).

### Kit ESCo EW8BX

ESA Automation's ESCo Kit provides any user with an extremely quick and easy method of implementing an EMS (Energy Monitoring System). The pre-wired, certified kit comprises of all the hardware and software you need to start monitoring and logging usage data, conveniently mounted in a GRP cabinet, just supply power and connect the CT/RC for the circuits to be monitored. The pre-installed software begins to record consumption immediately. Expanding the basic system is simply done by the addition of extra meters.



### Energyaware

Software pre-installed on the Data Manager for measurement, monitoring, local and remote control of smart meter networks. The software performs all the functionality of an advanced Energy Management System. Starting from the acquisition of consumption data, up to the remote control via VPN, including the secure access to the historical data loaded into databases.



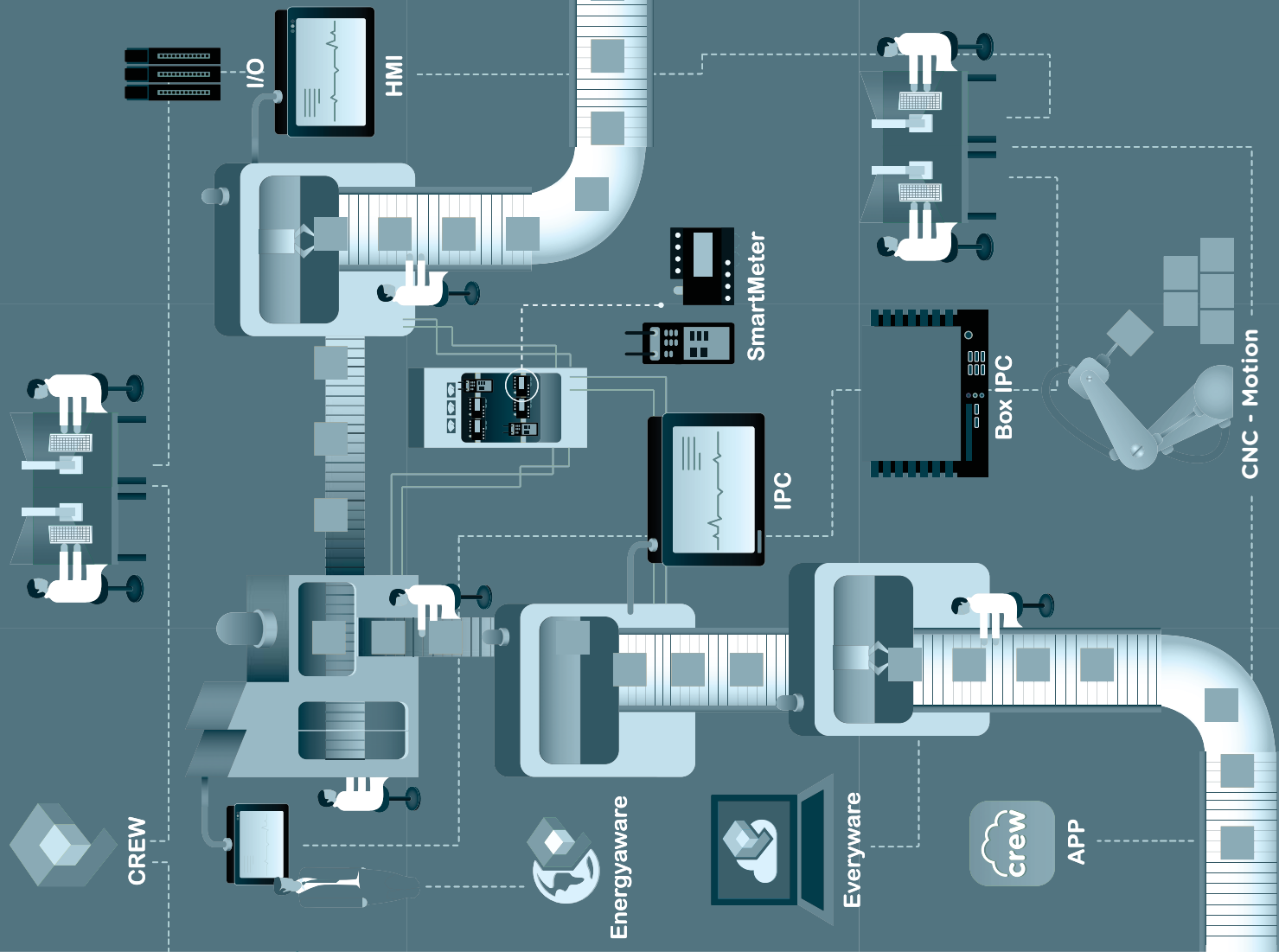
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By utilising the latest hardware and software innovations ESA Automation's engineers ensure our products and solutions are future proof and by implementing state of the art smart technology they guarantee ease of use.

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