

AUTOMATION

Connect ideas. Shape solutions.

CATALOG

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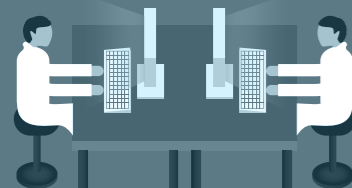
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Box IPC



## 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.



## 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.

## Overview Smart Tech. Ease of Use.



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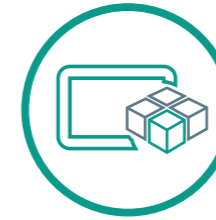
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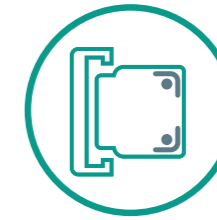
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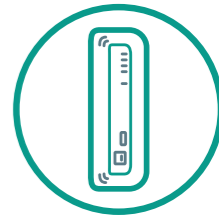
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**Make your experience more interactive.**

Explore the world of ESA Automation



# CREW

Our platform. Your touch.

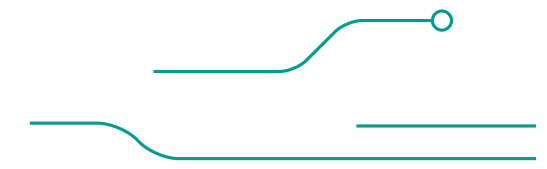
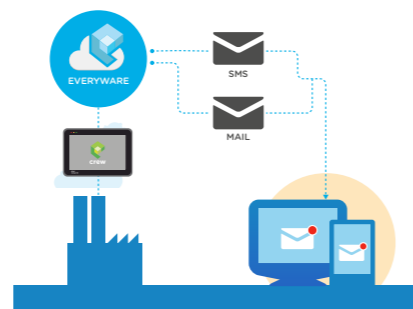
Crew is the innovative Esaware software SCADA that allows you to program any HMI or PC. The Crew suite consists of an intuitive editor with a modern look and feel, and the Runtime component is completely cross-platform. In fact, the Runtime can be displayed both on embedded and open platforms, such as 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)

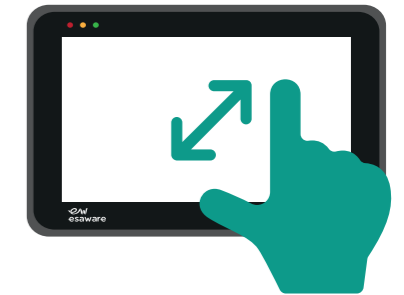
### SMS and Email

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 Everyware 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.

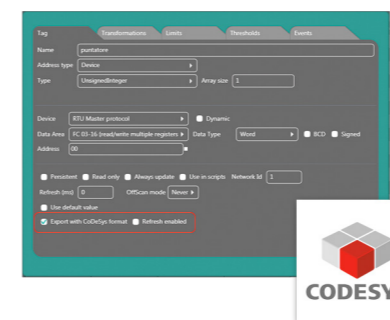
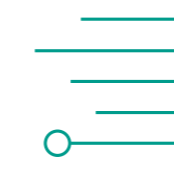


### Crew puts safety first

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.

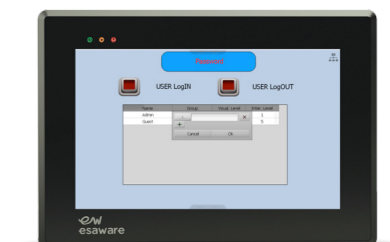


### Bridge functionality for better integration with CODESYS SoftPLC

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.

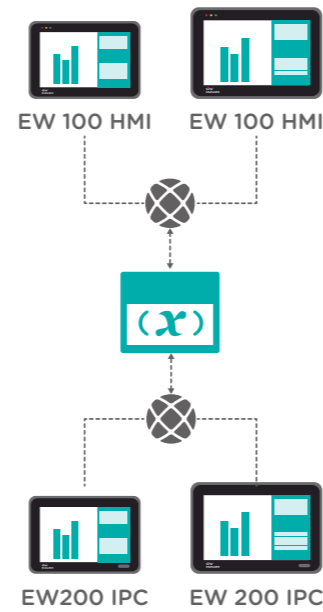
### Dynamic filters in Runtime

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.

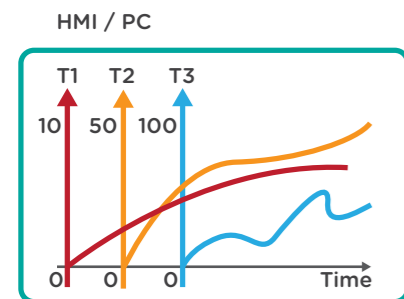
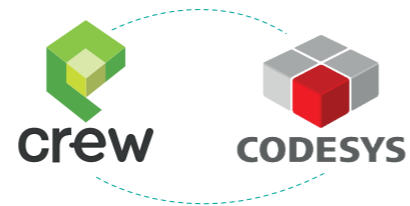


### Data structure management and array of TwinCAT structure and CODESYS

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.

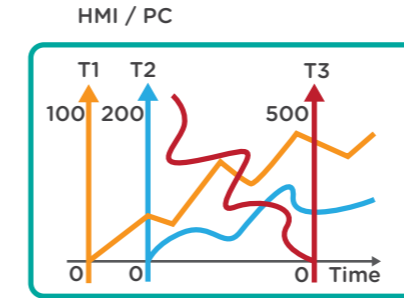
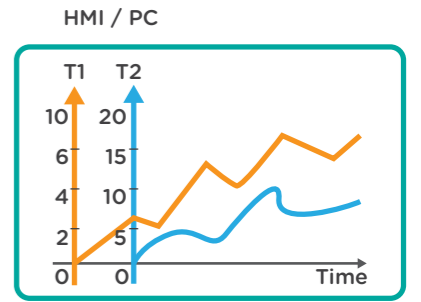


### Visualization and comparison of historical trends in Runtime

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. Is also possible to have directly automatic adjustment of scales.

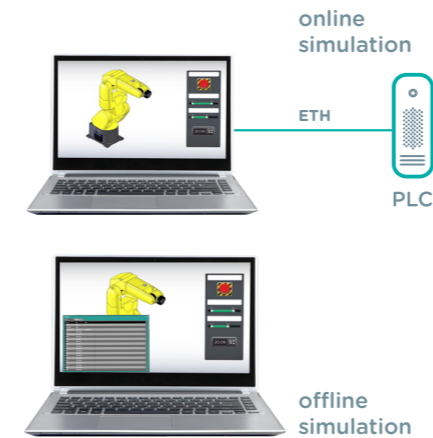
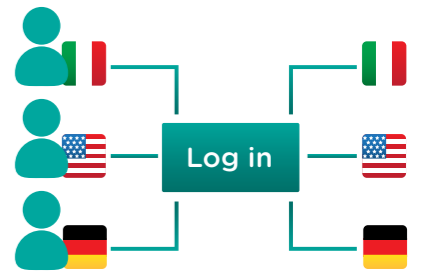


### Management of multi scale position on trend objects

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.

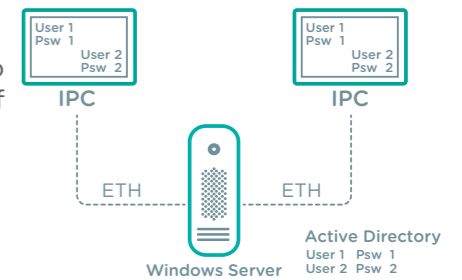


### Simulation

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.

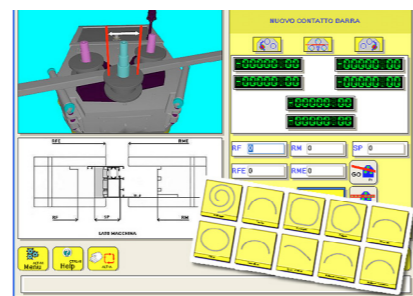
We offer a complete customer oriented automation “Turnkey” solution, including HMI, CNC, PLC and SCADA application development, debug, simulation, and full training of you engineers. Moreover, we provide onsite final testing on the customer’s plant or on the end user plant. Possibility to have customized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

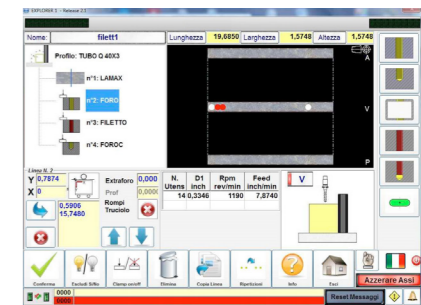


### Band saws cutting machines

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

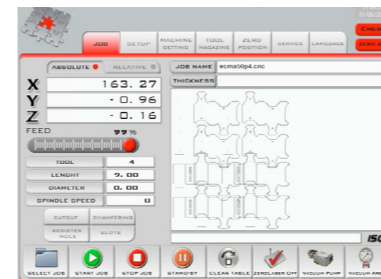
we have developed a machine center for working on iron bars, that can provide all kinds of drilling, screwing and milling thanks to a wizard macro programming tool.



## MACHINE TOOLS FOR WORKING SHEETS

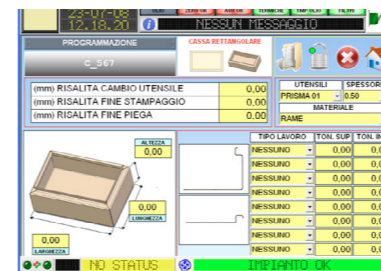
### Laser, water jet and plasma cutting

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.

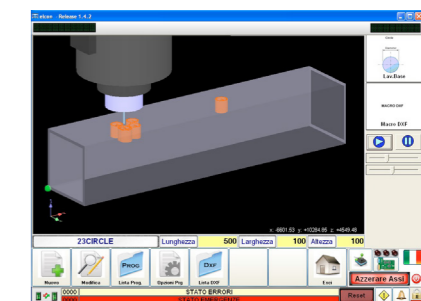
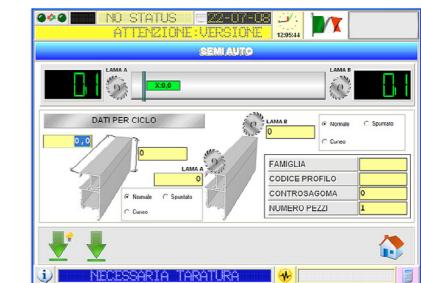
## MACHINE TOOLS FOR ALU & PVC WINDOWS PROFILES AND SECTIONS

### 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.







## 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 SMSs 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.

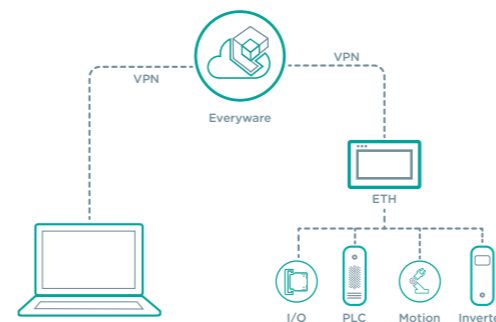


### Chat in real time

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.

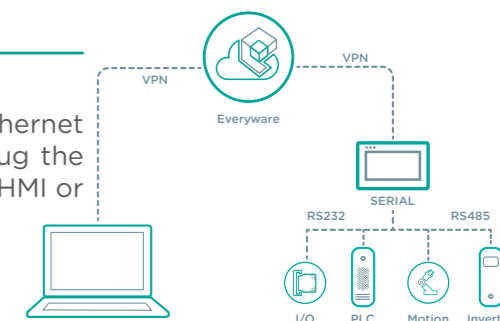


### Access to any network and subnetwork in the plant

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

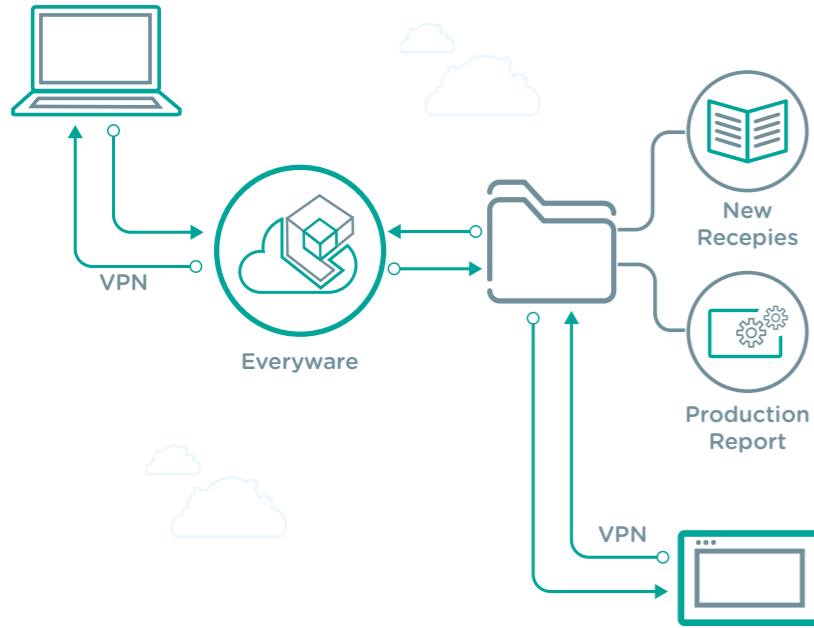
Thanks to the virtualization of the serial port inside Ethernet connections, you are able to download, upload and debug the applications that runs in a serial device connected to our HMI or PC.





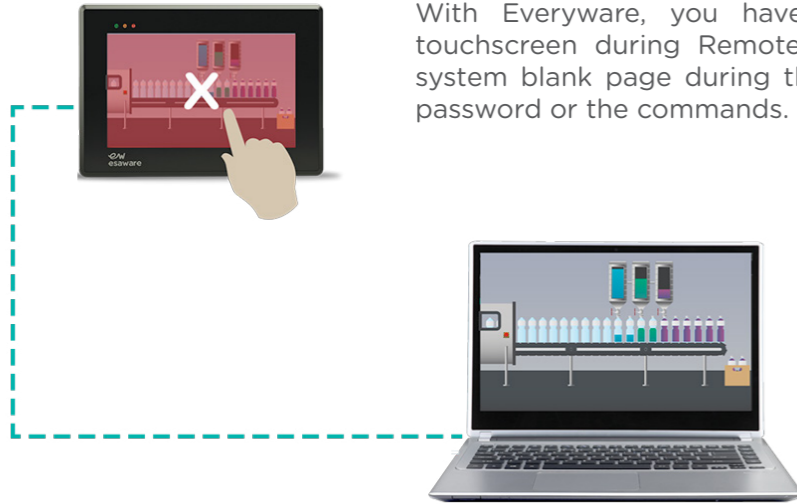
### Share files and folders directly with a remote device

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

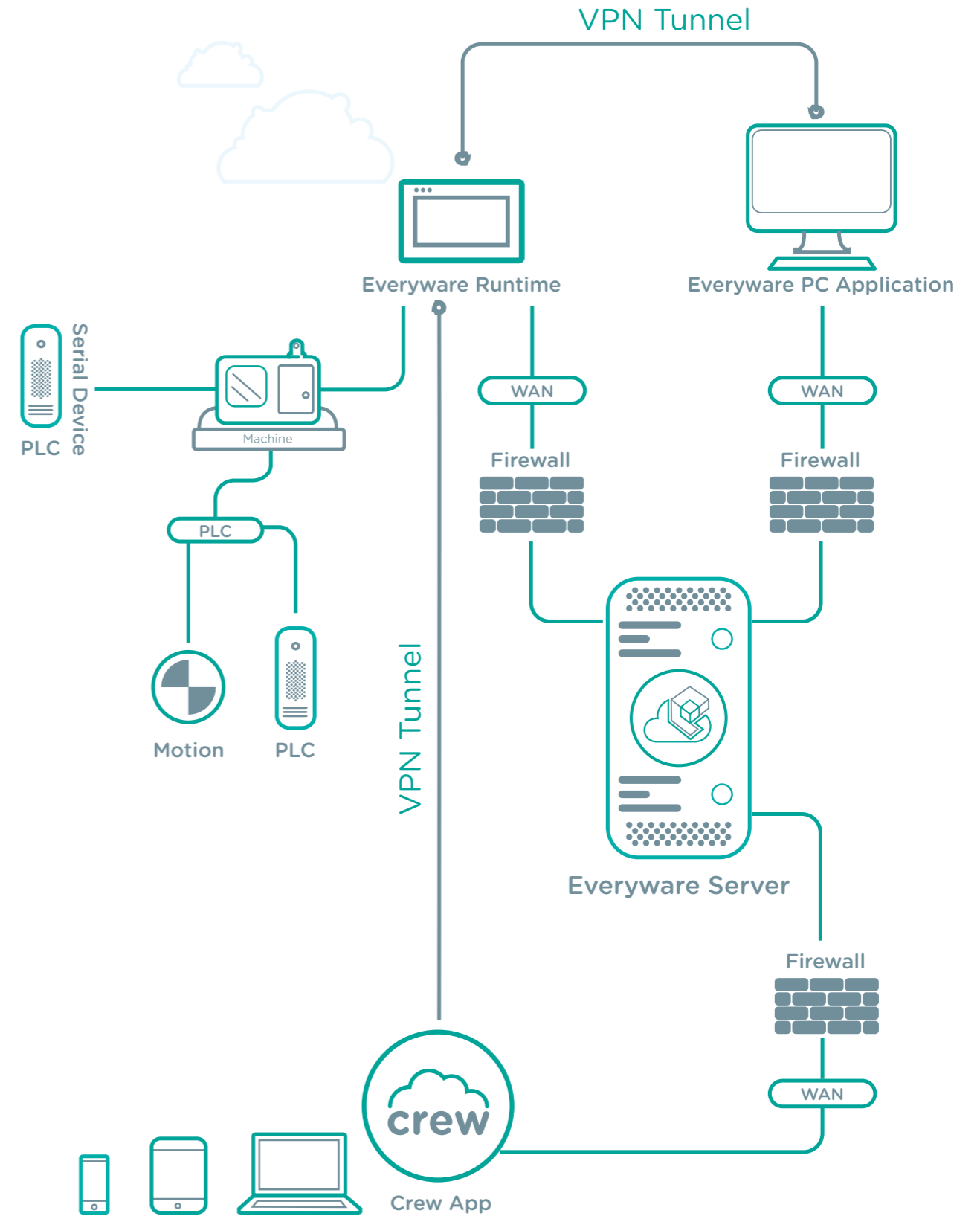


### Remote interaction

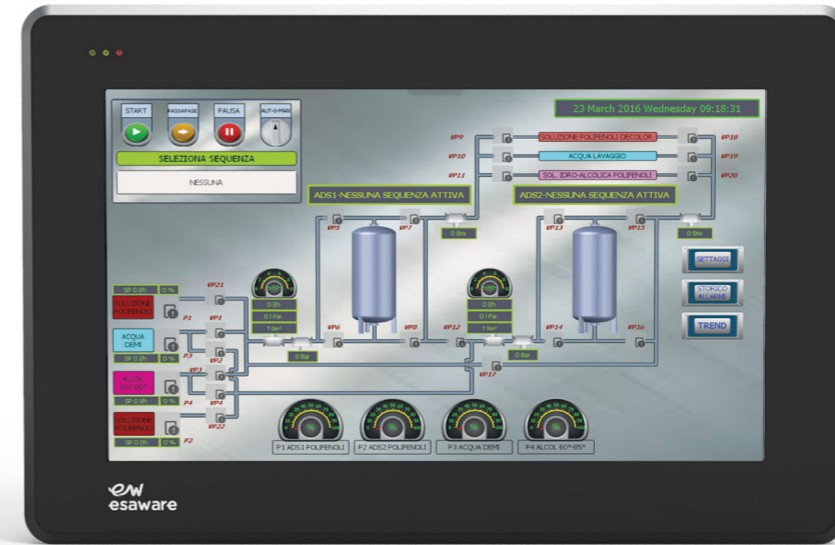
With Everyware, you have the possibility to disable the touchscreen during Remote Desktop sessions or to show a system blank page during the session in order to protect the password or the commands.



# Everyware





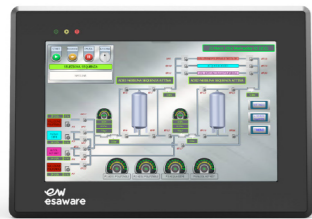


## Esaware HMI

### 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 backlit 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
- 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

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/m <sup>2</sup> )	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	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)	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 / cULus (Certificate no. E189179) / 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.

Stainless steel HMIs are equipped with:

- SP1 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

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	SP1 (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 Compact Flash
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 (SPI) / 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	

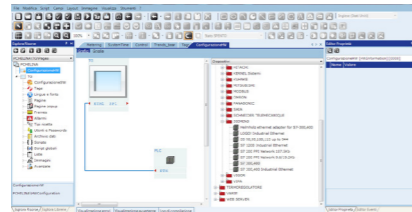
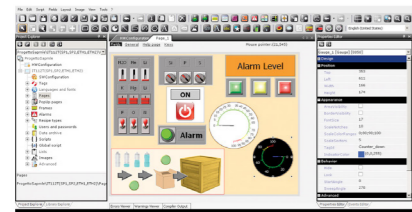


## SmartClick HMI

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 intellisense
- 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				
First serial port	Port 1 (RS232/RS485/COM0)		SPI (RS232/485/MPI)	Port 1 (RS232/RS485/COM0)	Port 1 (RS232/RS485/MPI)
Second serial port	-	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)		Supercapacitor 72h		
Power Supply (Vdc)	18 - 32				
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	202 x 142 x 40	280 x 190 x 37,5	
Cut-out dimensions (W/H) (mm)	105 x 66	190,2 x 129,2	194 x 134	271 x 181	
Weight (kg)	- 0,3	- 0,8	- 1	- 1,4	
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.

These the main features:

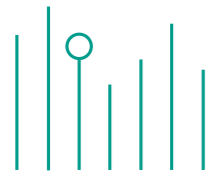
- 18 operative keys
- 12 function keys
- 11 alphanumeric keys
- Powered by Polymath



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.



**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).

**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), 18 customizable auxiliary keys. Available with Profibus-DP network.

Features	VT050	VT060	VT150	VT160	VT170
Display Type	Text LCD				
Display Backlight	LED				
Columns by Rows (text)	20 x 2		20 x 4		
Display area size (mm h-v)	73,5 x 11,5		70,4 x 20,8		
Text character Matrix (pixels h-v)	5 x 7				
Character dimensions (mm h-v)	3,2 x 5,5		2,95 x 4,75		
Contrast adjustment	Trimmer				
Character set	Ascii, Katakana				
Project Memory (bytes)	256K			320K	
Recipes/Alarm buffer (bytes)	-			32K/8K RAM	
MSP serial port	RS-232/422/485/TTY 20 mA				
ASP serial port	-			RS-232 (9 pin)	
Connection with optional keyboard	-		Yes	Integrated	-
Integrated network (optional)	CAN		CAN, Profibus-DP	Profibus-DP	-
Optional	Profibus-DP, Interbus-S, CAN				
ESA-Net (variables)	Client			Server (128), Client	
Power supply (Vdc)	18 - 32				
Consumption (W)	5		15		9
Operating temperature (°C)	0 ... +50 (non condensing)				
Storage temperature (°C)	-20 ... +60 (non condensing)				
Humidity	<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
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 65		
Project Languages	4		6		8
Password levels/Bit passwords	-/8		10/8		
Pages/Fields per page	127/12		1024/32		1024/16
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	-/128		-/1024		1024/1024
Help messages (pages/info messages/alarms)	127/128/-		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		32/32		
Equations	32				
Keyboard Operative/function/alphanumeric keys	8/5/-	6/4/-	9/5/11	9/23/11	13/12/11
Certifications	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



**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



**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, 74 operative keys (28 function keys, 16 customizable)

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-232/422/485/TTY 20mA	
ASP 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)	
Storage temperature (°C)	-20 ... +60	
Humidity	< 85% (non condensing)	
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	
Project Languages	4	8
Password levels/Bit passwords	10/ 8	
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)	





## HANDHELD 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

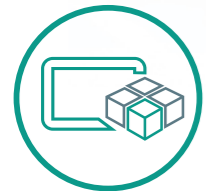


**VT525H HMI**  
with 5,7” graphic 16-color STN LCD display, 16 rows by 40 characters (320 x 240), Touch-Screen, 960 KB project, clock, 32 KB recipes, 10 mt cable

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)
- 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”	
Display Technology	STN	
Display Colors	4 tones of blue	16 colors
Display Backlight	CCFL	
Display Resolution (pixel)	320 x 240	
Backlight life (hours)	45k	50k
Touch Screen Matrix (cell dimension in pixels h-v)	20 x 16 (16x15)	
Display area size (mm h-v)	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
MSP 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)	Client	
Power supply (Vdc)	18 - 32	
Consumption (W)	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	
Pages/Fields per page	128/34	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/Variables per recipe)	128/256	
Macros (Number/Commands per macro)	1024/16	
Print pages (Total/Number of fields per page)	-	64/128
Automatic Operations/Timers/Equations	32/32/32	
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	-	Supercapacitor 72 hours
Function keys	10	
Certifications	CE/cULus	



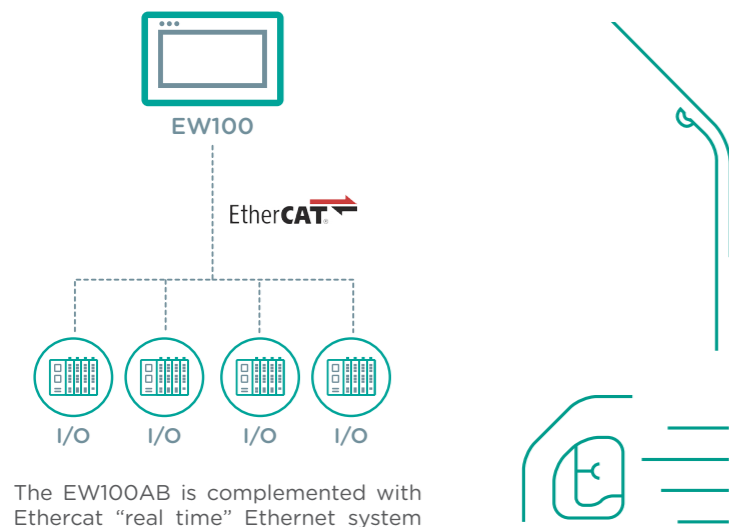
## Esaware HMI + SoftPLC

### 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.

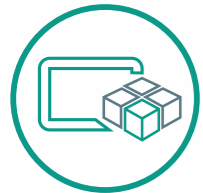
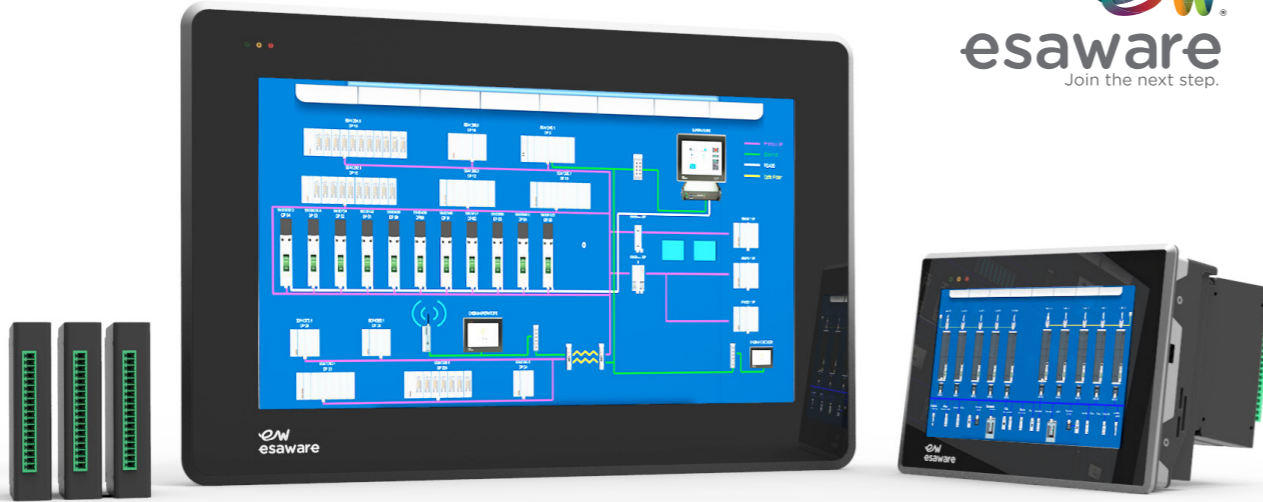
These are EW100AB main features:

- Preloaded CoDeSys v.3.5 Runtime
- Embedded NVRam
- Watchdog Sw
- Watchdog Hw
- Ethercat Master 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



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

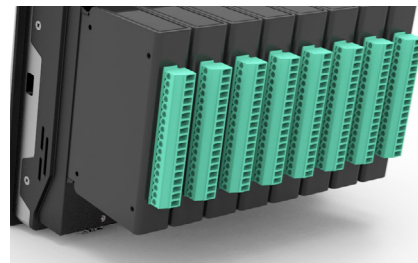
Features	EW104AB	EW107AB	EW112AB	EW115AB
Display Size	4,3"	7"	12,1"	15,6"
Display Technology	TFT			
Display Colors	262k	16M		
Display Backlight	LED			
Display Brightness (cd/m²)	400	600	400	300
Display Resolution (pixel)	480 x 272	800 x 480	1280 x 800	1366 x 768
Backlight life (hours)	50k			
Processor	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.



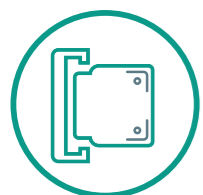
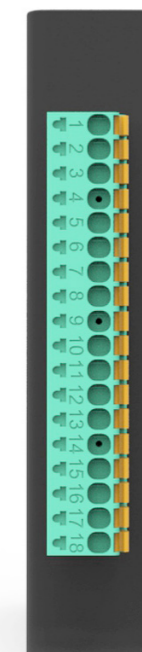
With the addition of an integrated I/O backplane and Esaware EW600 local I/O, the EW100AC is the complete automation control system. The EW100AC "all in one" solution can be expanded with Ethercat "real time" distributed I/O, delivering ultimate flexibility and efficiency.

These are EW100AC main features:

- Backplane for EW600 I/O
- Preloaded CoDeSys v.3.5 Runtime
- Embedded NVRam
- Watchdog Sw
- Watchdog Hw
- Ethercat interface on board
- Operating System Windows Embedded Compact 7 Pro
- Preloaded Everywhere 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



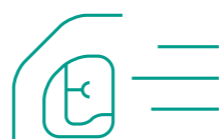
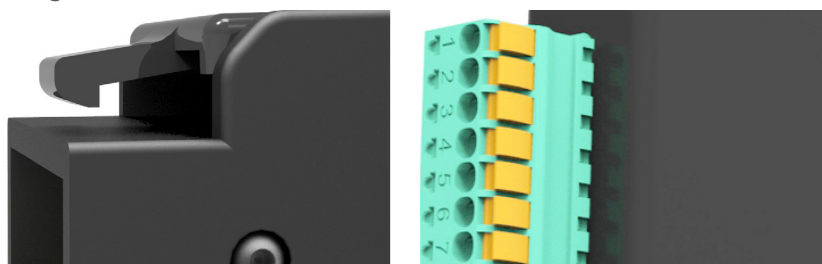
Features	EW104AC	EW107AC	EW112AC	EW115AC
Display Size	4,3"	7"	12,1"	15,6"
Display Technology	TFT			
Display Colors	262k	16M		
Display Backlight	LED			
Display Brightness (cd/m <sup>2</sup> )	400	600	400	300
Display Resolution (pixel)	480 x 272	800 x 480	1280 x 800	1366 x 768
Backlight life (hours)	50k			
Processor	ARM Cortex A8			
RAM	256 MB DDR3		512 MB DDR3	
Flash	3GB			
I/O Slot	4	8	12	16
NVRAM	32Kb (SoftPLC)			
Scan Time (µSec)	Typical 30			
Serial Ports	SPI RS232/485-MPI-COM ; SP2 RS232/485-MPI-COM ; 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			



## Embedded I/O Clack & 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.

#### 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)

### 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)

### Thermoresistances Input - EW600E

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

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)

## 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

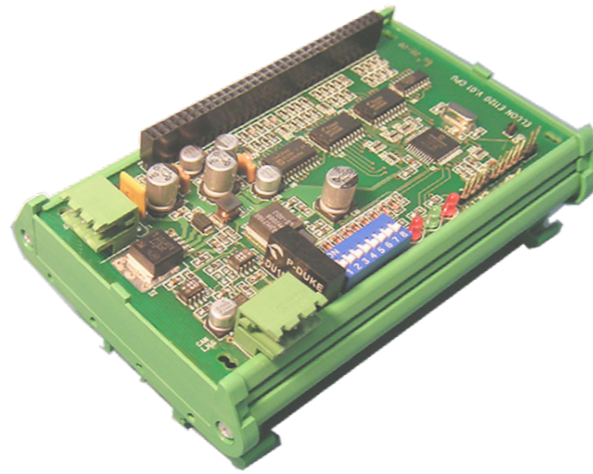
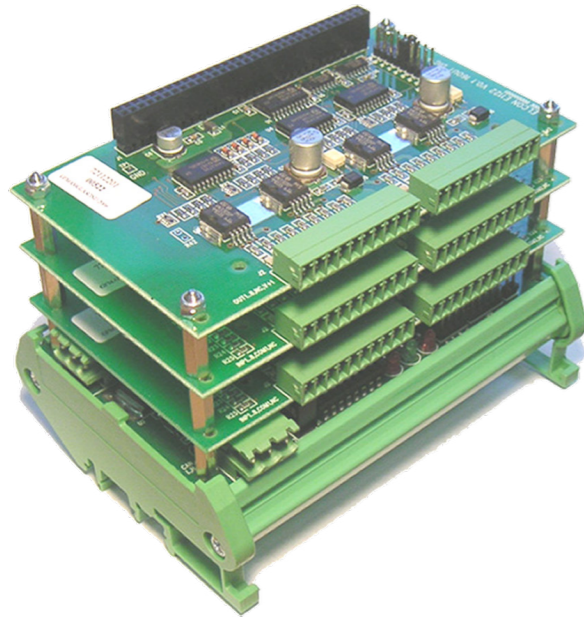
Supply Voltage (Vdc)	24
Input Numbers	3
Input Type	0 / 5 V, 0 / 10 V, +10 / -10 V, 0 / 20 mA, 4 / 20 mA
Output Numbers	2
Output Type	0 / 5 V, 0 / 10 V, +10 / -10 V, 0 / 20 mA, 4 / 20 mA
Resolution	16 Bits
Operating Temperature (°C)	-10 ... + 50 (non condensing)
Storage Temperature (°C)	-20 ... + 65
Humidity	<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, E1 124, 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 Vin > +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

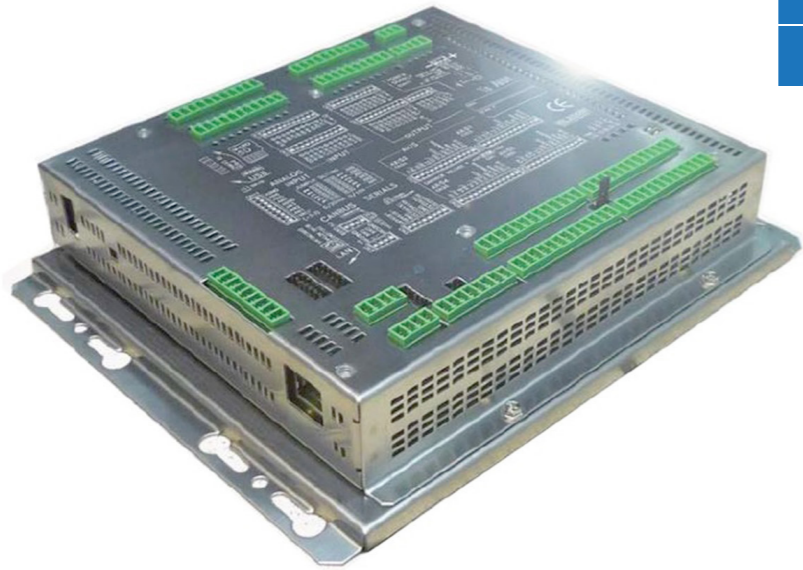
Card	8 ANALOG INPUTS for E1120	ANALOG
POT power supply	Reference voltage + 5Vdc 5mA for external potentiometers	
Inputs	Independently selectable as 0/5V - 0/10V - 0/20mA resolution 12bit	

### 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

CPU	Intel Atom D525 Dual Core 1,86 GHz
Main Storage memory	1, flash disks (different sizes available)
Serial Ports	1 RS232
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 , prot. Can Open (+3 optional)
Lan Ethernet	1, Ethernet 10:100:1000

### Features

### Box Arm

CPU	Cortex M3 / Arm 7
Digital input	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 RS232 + 1 RS485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - FTP compatible - Modbus/TCP server, with remote desktop function
Serial ports	2, 1 RS232 + 1 RS485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - FTP compatible - Modbus/TCP server, with remote desktop function
Universal Serial Bus Port - USB	1, USB 2.0 for pen drive
Field Bus	2, CAN BUS MASTER , Can Open protocol
Real Time Clock (RTC)	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 Cams 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

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

### Features

### TS804L Visual PLC + CNC

### TS804LX Visual PLC + CNC

Main Cpu	CPU Arm 7	
Touch Screen Display	4,3" Color, resolution 480x272	
Digital inputs	4, 24Vdc, PNP	8, 24Vdc, PNP*
Digital outputs	4, solid state, 24Vdc, PNP, 1,2Amp each	8, solid state, 24Vdc, PNP, 1,2Amp each
Configurable I/O	-	4, configurable as digital inputs 24VDC or outputs
Analog inputs	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 thermoresistance Pt 100
Analog outputs	2, configurable as 0-20mA o 0- 10V ou PWM / Step-per (to be specified before purchasing)	2, configurable as 0-20mA or ± 10V or PWM
Main Flash storage memory	1, removable SD Flash 1 GB	
Encoder inputs	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
Serial ports	3, 2 RS 232 + 1 RS 485	2, 1 RS 232 + 1 RS 485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - Ftp compatible - Modbus/TCP server, with remote desktop function	
Universal Serial Bus - USB	1, USB 2.0 for pen drive	
Field Bus	1, CAN BUS MASTER , Can Open protocol	
Real Time Clock (RTC)	1, Real Time Clock : 24 hours with SCHEDULER (real calendar)	

Features

TS680 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 + 1on 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, CAN BUS MASTER, Can Open protocol
Real Time Clock (RTC)	1, Real Time Clock : 24 hours with SCHEDULER (real calendar)

Features

TS690 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 + 1on 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, CAN BUS MASTER, Can Open protocol
Real Time Clock (RTC)	1, Real Time Clock : 24 hours with SCHEDULER (real calendar)

Features

TS970 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, CAN BUS 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 + 1on 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, CAN BUS 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

CPU	Arm 7
Display	5,7" LED color, 320x240 resolution
Keyboard	32 keys
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 RS232 + 1 in standard RS485
Lan Ethernet - Teleservice	1, Ethernet TCP/IP - Ftp compatible - Modbus/TCP server, with remote desktop function
Universal Serial Bus Port - USB	1, USB 2.0 for pen drive
Field Bus	2, CAN BUS MASTER, Can Open protocol
Real Time Clock (RTC)	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
- SNTP 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/m <sup>2</sup> )	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 1 GB		
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 11.1
- 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/m <sup>2</sup> )	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 (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/0x ATOM/Intel®Core™ (fan)			
Ethernet (Atom dual core)	2x 1Gb RJ45 Intel 82574L			
Ethernet ( Fan I-Core™)	2x 1Gb RJ45 Intel 82579/RTL8111			
VGA/DVI-D (Atom dual core)	1x / 1x (dimnable LCD backlight)			
VGA/DVI-D (Fan Intel® Core™)	1x / 1x			
Audio - PS2	1x Mic + Line in/out - Mouse/Keyboard			
CFast 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 / CFast 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 (PCT 10 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	572x363x67
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 - WIN8.1			
Protection degree (front)	IP66			
Certifications	CE / EN61000-6-2 / EN61000-6-4 / EN60068-2-6 / EN60068-2-6/27/30 / 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® iCore 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 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			

## XS7 Industrial Panel PC Fanless Atom

Features	XS7W7	XS708	XS712	XS715	XS717	XS719
Display Size	7" Wide	8,4"	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	800x600 (SVGA) 1024x768 (XGA)	1024 x 768	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		NM10			
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 (optional)	min. 500 GB SATA 2,5" / SSD 16 GB					
Compact Flash Slots Internal (opt.)	1 x					
Compact Flash Slots External (opt.)	1 x					
RS232 serial port	1 x		2 x			
RS485 serial port	1 x					
USB on front (2.0) IP66	1 x					
USB on rear (2.0)	2 x		4 x			
Green led on front	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					
External (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					
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 Vcc 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	- 3	- 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	-		Yes			
Removable HDD/SSD	-		Yes			
DVD-RW Sata	-	External (opt.)		Internal (opt.)		
Operating system	WIN7 - WES7 - WES2009 - Win® XP Pro SP3 MUI - CE			WES2009 - Win® XP Pro SP3 MUI - WIN7 - WES7		

## XS7 Industrial Panel PC Fanless Celeron

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 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.)	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 - WIN 8.1			





## Stainless Steel Panel IPC

Extreme durability. High endurance.

ESA Automation XS7 industrial PC family is also available with bezel in Stainless Steel.

The XS7 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 XS7 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 XS7 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

## XS7 Panel Dynamic iCore Stainless Steel

Features	XS712	XS715	XS717
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® iCore 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)	48/58	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	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	XS712	XS715	XS719
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		NM10	
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.)	1 x			
Compact Flash Slots External (opt.)	1 x			
RS232 serial port	1 x		2 x	
RS485 serial port		1 x		
USB on rear (2.0)	2 x		4 x	
Green led on front		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			
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	1 x			
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	-	External (opt.)	Internal (opt.)	
Operating system	WIN7 - WES7 - WES2009 - Win® XP Pro SP3 MUI - CE		WES2009 - Win® XP Pro SP3 MUI - WIN7 - WES7	

## XS7 Panel PC Fanless Celeron Stainless Steel

Features	XS712	XS715	XS719
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.)	1 x		
CFast Slots External (opt.)	1 x		
RS232 serial port	2 x		
RS485 serial port	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 (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	1 x		
Power supply	18...30 Vcc max 75W	18...30 Vcc max 85 W	18...30 Vcc max 95 W
Back-up with battery	1 x		
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 Vcc basic config - NO PCI CARDS)	36	43	55
Operating temperature (°C)	0...+50 (non condensing)		
Storage temperature (°C)	-20...+65		
Humidity	90% (non condensing)		
Weight (kg)	- 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	Option		
Removable HDD/SSD	Option		
DVD-RW Sata	External (opt.)	Internal	
Operating system	WIN7 - WES7 - WIN 8.1		



## 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 an 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
<b>Aluminium Enclosure</b>	Heavy duty steel chassis Selection ATX/APO via Bios LED green on/off On/Off push-button LED red HDD Lockable power connector Aluminum heat-sink with Heat-Pipe thermal system	
<b>CPU Fanless</b>	Atom Dual Core D2550 1,86 GHz	Intel Core i3-3120ME 2,4GHz Intel Core i7-3610QE Quad 2,3GHz
<b>Chipset</b>	NM10 DMI 2,3GT/s	QM77 DMI 5GT/s
<b>GPU embedded</b>	GMA3650 min 640 MHz	HD Graphics 4000 650/1000 MHz
<b>RAM</b>	2GB RAM up to 16GB DDR3	4GB RAM up to 16GB DDR3 SODIMM 204-pin 1333 MHz
<b>I/F</b>	2 x RS232/422/485 Sub-D 9 pin 3 x RS232 Sub-D 9 pin 6 x USB ver.2.0 2 x Ethernet 1 Gbit RJ45 - Intel 82574L 1 x miniPCIe 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 RS232 Sub-D 9 pin 4 x USB ver. 3.0 2 x Ethernet 1 Gbit RJ45 - Intel 82579/82574L 1 x miniPCIe slot 1 x VGA 1 x DVI-D 1 x HDMI 1 x Line Out / Mic In 1 x CFast slot external access
<b>Drives</b>	HDD min. 500GB/SSD min. 16GB/CFast min. 4GB	HDD min. 500GB/SSD min. 16GB/CFast min. 4GB [RAID 0-1 optional]
<b>Mechanical slot (opt.)</b>	-	2 x slot (1xPCIe x1 + 1PCI)
<b>Operating Temperature (°C)</b>	-20...+ 60 (non condensing)	
<b>Storage Temperature (°C)</b>	-20 ... + 65	
<b>Humidity</b>	<90% (non condensing)	
<b>Weight (kg)</b>	3	4,5/6 (0/2 slot ver.)
<b>Power supply (Vdc)</b>	9...26 - 22W (2GB + HDD)	9...26 - 45W (i3 - 4GB+HDD)
<b>Dimensions (W/H/D) (mm)</b>	299x216x59	337x239x77 / 337x239x122 (0/2 slot ver.)
<b>Operating Systems</b>	WIN7 - WES7	
<b>Protection degree</b>	IP20	
<b>Certifications</b>	CE / EN61000-6-2 / EN61000-6-4 / EAC	



## 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.



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



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

### Features

### EW410

Aluminium Enclosure	Heavy alu extrusion chassis Aluminum Heat-Sink LED green on/off Selection ATX/APO via Bios On/Off push-button LED blue HDD Lockable power connector
CPU Fanless	Atom Dual Core D2550 1,86 GHz
Chipset	NM10 DMI 2,5GT/s
GPU embedded	GMA3650 1920x1200 max. resolution
RAM	RAM 2GB DDR3 1066 MHz on board
I/F	2 x RS232/422/485 Sub-D 9 pin 4 x USB ver. 2.0 1 x SIM slot 2 x Ethernet 1 Gbit RJ45 - Intel 82574L 3 x MiniPCIe slot (1 x mSATA) 1 x DVI-I 1 x Line Out / Mic In 1 x CFast slot external access
Drives	CFast/mSATA
Operating Temperature (°C)	0...+60 (non condensing)
Storage Temperature (°C)	-40...+80
Humidity	85% (non condensing)
Weight (kg)	0,7
Power supply (Vdc)	9 ... 26 - max 20W
Dimensions (W/H/D) (mm)	161x108x32
Operating Systems	WIN7 - WES7 - WES2009
Protection degree	IP20
Certifications	CE - EN61000-6-2 / EN61000-6-4 / EAC



## Box IPC

### Endurance and reliability

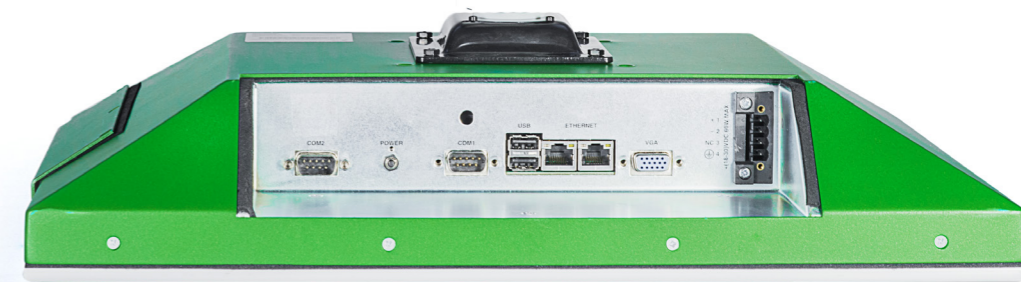
XB300 industrial BOX PC family offers a complete range of products able to fully satisfy any automation requirement. XB300 industrial BOX PC range gives the maximum power to your applications thanks to the possibility to choose between several CPUs of series Intel® Core™ and Core 2 Duo, Celeron B810, 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® iCore i3-3120ME 2.4 GHz, i5-3610ME 2.7 GHz, Cel. B810 1.6 GHz	Intel® Celeron Core Duo T3100 1.9 GHz, Intel® Core2Duo P8400 2.26 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 red led	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 104	195 x 268 x 125	195 x 268 x 146
Back-up with battery	1 x	1 x	1 x		
Power supply (Vdc)	11..32 - max 95 W	11..32 - max 95 W	11..32 - max 95 W		
Power consumption (W) (24 Vdc - basic config - NO PCI CARDS)	30	42/54	54/42		
Protection level	IP20				
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 - Win® XP Pro SP3 MUI				



## 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 backlit 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.

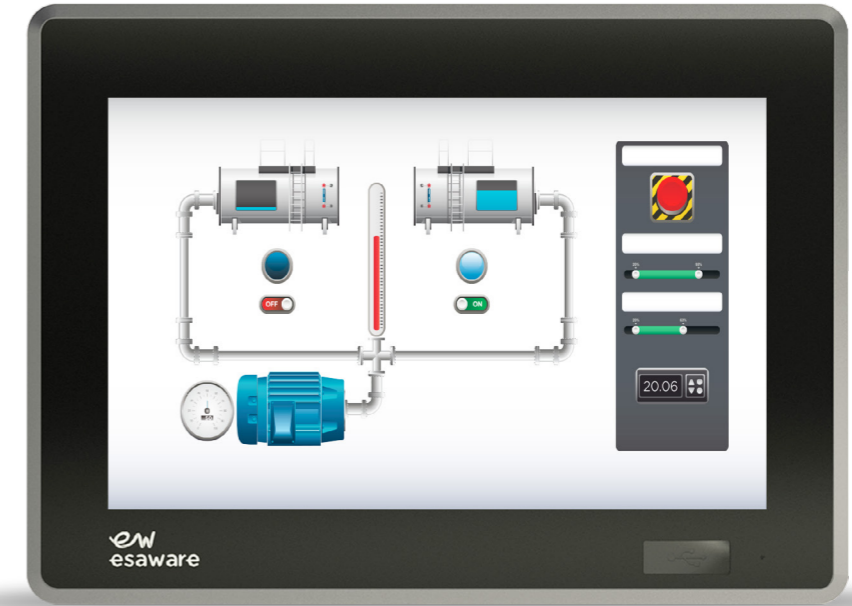
VESA XV715 can be ordered with the following operating systems: WIN7, WES7, WES 2009, XP pro for Embedded.

These are XV7 Vesa IPC main features:

- 15" LCD display with Touch Screen and white LED back-lighting.
- CPU Intel® ATOM N2800 Fanless, the third generation of Intel® Atom Dual Core microprocessor
- Extreme mounting simplicity thanks to the VESA 75/100 attachment holes
- High configuration flexibility with HDD, SSD, CF and RAM options
- IP66 on front and IP54 on rear

### XV7 VESA IPC Fanless

Features	XS715
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	1 x
USB on rear (2.0)	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)	7,5
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



## Esaware Industrial Monitor

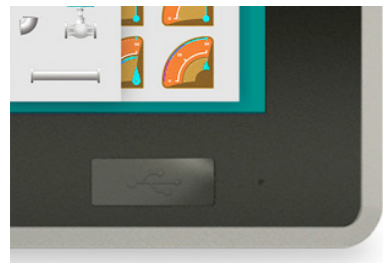
Innovative design. Elegant technology.

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.

The main features of EW300 Industrial Monitors are:

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



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.

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/m <sup>2</sup> )	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	Aluminium - 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	XM708	XM712	XM715	XM717	XM719
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-I */S-Video/Video composite	1 x (* 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)					
Weight (Kg)	2,2	2,6	4,0	6,0	7,5	9,0
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	XM712	XM715	XM719
Display Size	7" Wide	12,1"	15"	19"
Bezel Inox V2A	6mm thickness			
Technology	TFT 262 K colors		TFT 16,2 M colors	TFT 16,7 M colors
Display Backlight	LED			
Brightness cd/m2	500	370	350	400
Contrast	600:1		700:1	1000:1
Viewing angle H-V	70-60		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 true flat (4 wires)		Analog resistive true flat (5 wires)	
Touch output	RS232 + USB			
USB frontal IP66 / USB rear (2.0)	None			
Green Led Power ON	None			
VGA/DVI-I */S-Video/Video composite	1 x (* digital signal only single-link)			
External (WxHxD)	228 x 155 x 66,7	336 x 256 x 56,7	425 x 300 x 57,2	508 x 384 x 64,2
Cut-out (WxH)	219 x 145	321 x 240	393 x 275	477 x 353
Power supply (Vdc)	18...30 max 50W			
Power consumption (W)	30	35		45
Protection degree	IP69K front 7" / 12,1" - IP66 front 15" / 19"			
Operating temperature (°C)	0...50 (non condensing)			
Storage temperature (°C)	-20...+65			
Humidity	90% (non condensing)			
Weight (Kg)	3,0	5,0	7,0	10,5
Certifications	CE, Atex (Group II - cat.3 G D), Environmental EN60068-2-6/27/30, Immunity EN61000-6-2 / Emission EN 61000-6-4			



**esaware**  
Join the next step.

# ENERGY MANAGEMENT

Focus your energy.



Discover **ESA energy world**  
visit [www.esa-automation.com](http://www.esa-automation.com)



## 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.

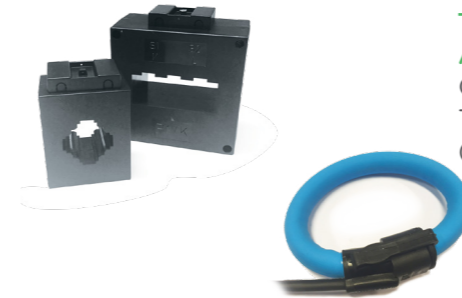
### SMART METERS EW800

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 Energyware software, for easy management via standard browser, including real time visualization of all collected data, with advanced graphics.

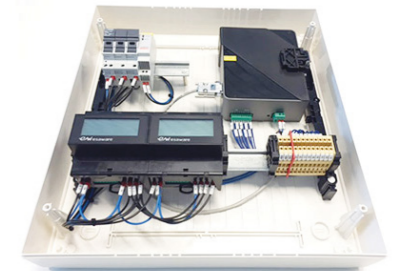


### Accessories EW8ET

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.



### Energyware

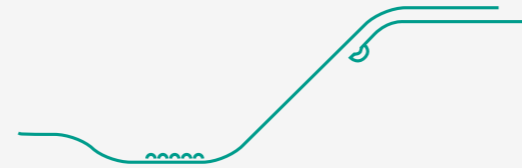
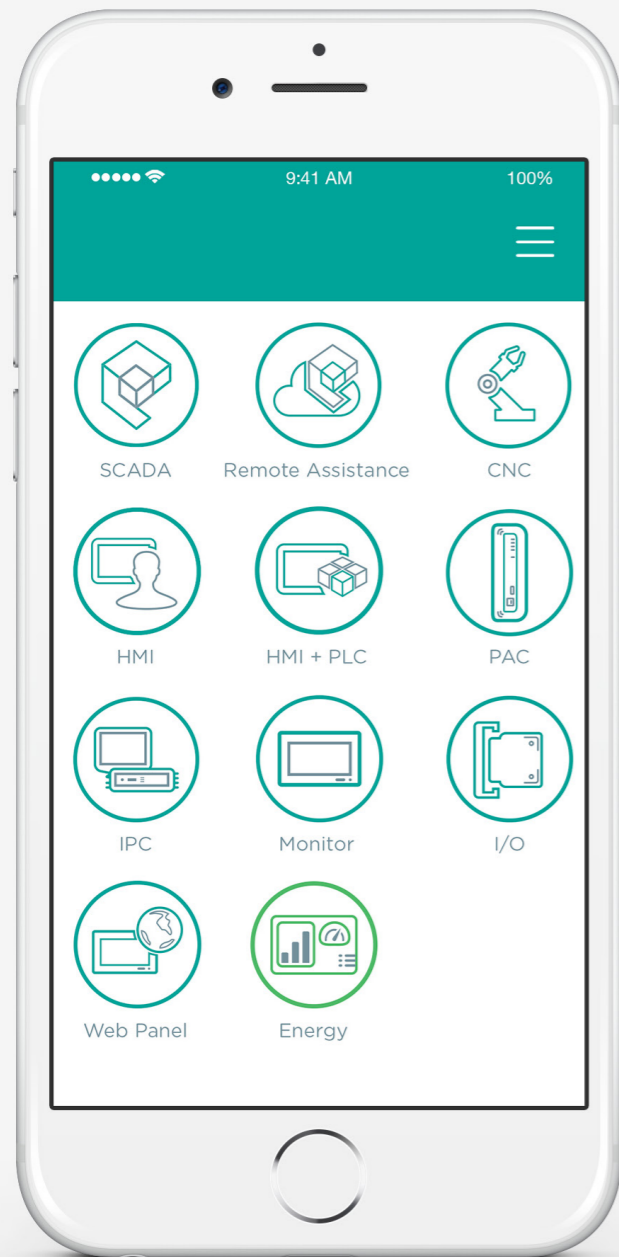
Software pre-installed on the Data Manager for measurement, monitoring, local and remote control of smart meter networks. The software performs all the functionality of an advanced Energy Management System. Starting from the acquisition of consumption data, up to the remote control via VPN, including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



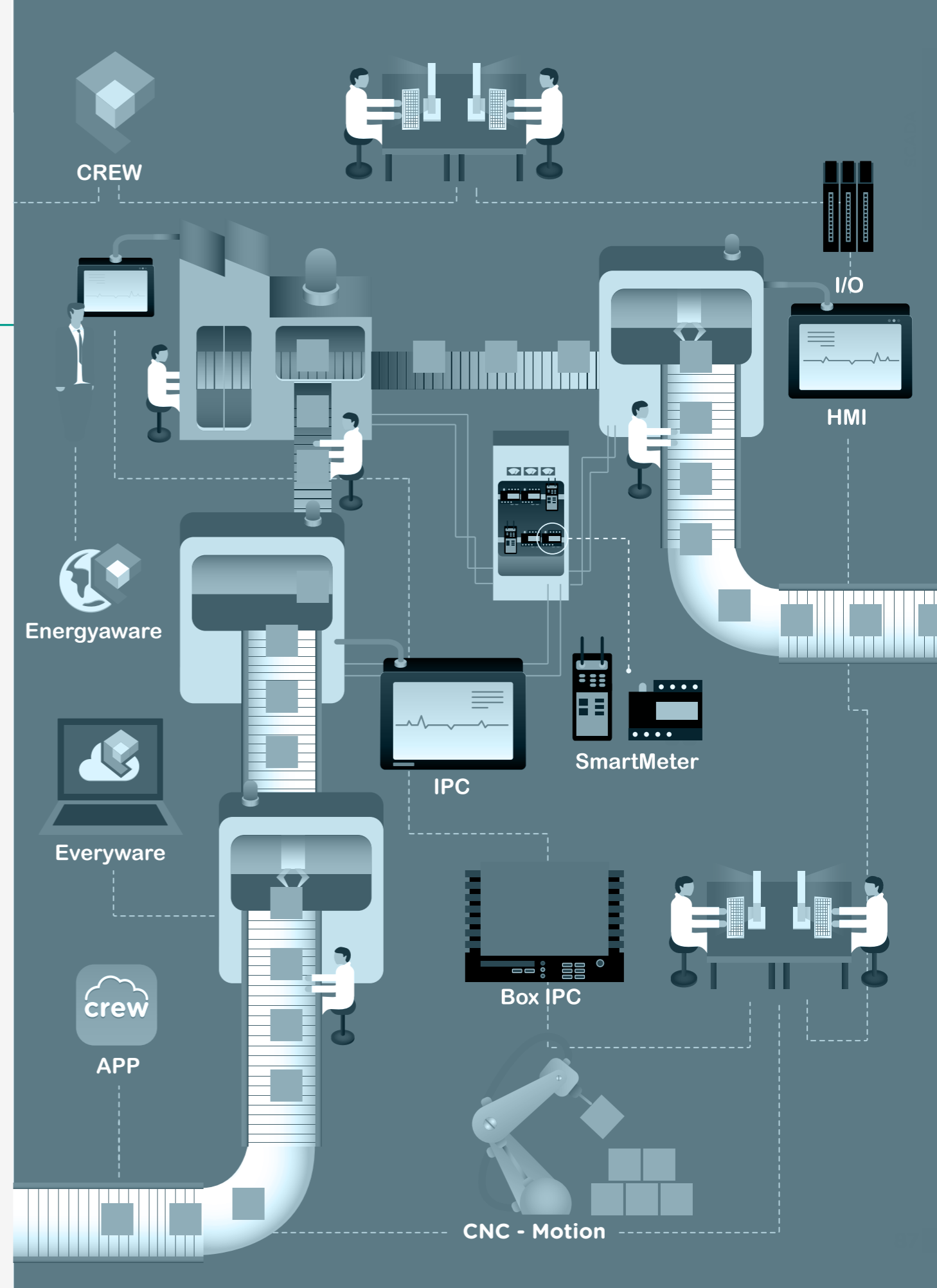
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By utilising the latest hardware and software innovations ESA Automation's engineers ensure our products and solutions are future proof and by implementing state of the art smart technology they guarantee ease of use.

Our mission is to create solutions not just products.



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