Mind
Over
Innovation.

ERGO

All in one platform solution

www.esa-automation.com

Overview Configuration

1. IPC
2. HMI+SOFTLPC
3. HMI
4. WEBPANEL
5. MONITOR
6. CUSTOM BUTTON SLOTS

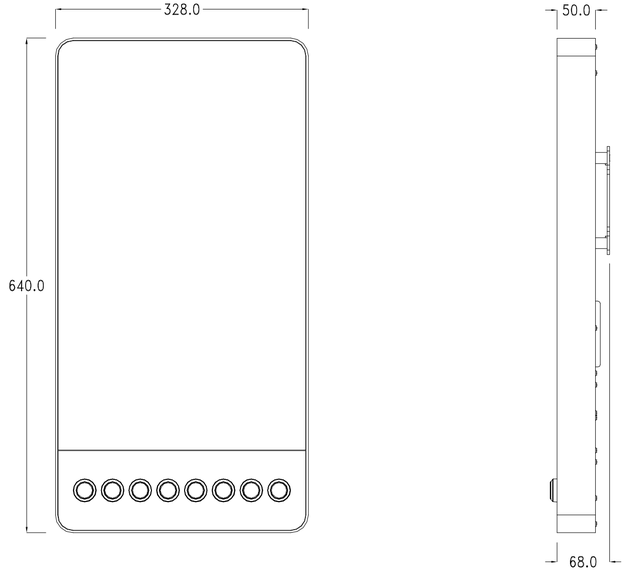
1. KEYBOARD TOUCH
2. HMI+SOFTPLC
3. WEB PANEL
4. CUSTOM KEYBOARD

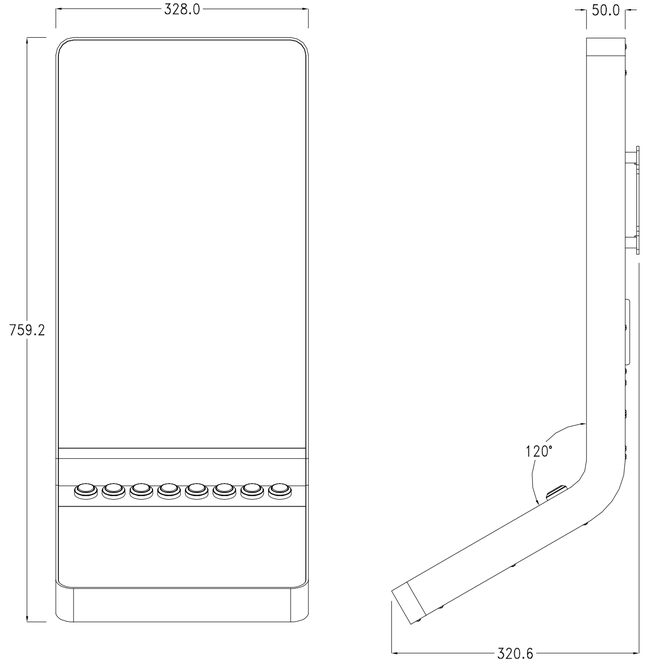
KVM OPTION

RFID option

USB

1. IPC
2. HMI+SOFTLPC
3. HMI
4. WEBPANEL
5. MONITOR





ERGO is the new all-in-one machine control system by ESA. A solution designed to deliver the highest level of flexibility, ergonomics and customization. With a true flat projected capacitive multi-touch screen and a 21.5" million colors TFT display, it offers a very wide choice of configurations and customizable options, including buttons, touch keypads and even an additional 12.1" HMI. In order to maximize productivity, ERGO comes into two true flat versions: classical and 120° ergonomic. Finally, thanks to its rough design and easy installing system, it can be installed in any work environment (even the harshest ones), both in landscape and in portrait mode.

APPLICATION

- Packaging Machine
- Plastic and rubber machine
- Steel and Wood working machine
- CNC
- Food processing machine
- Robotics

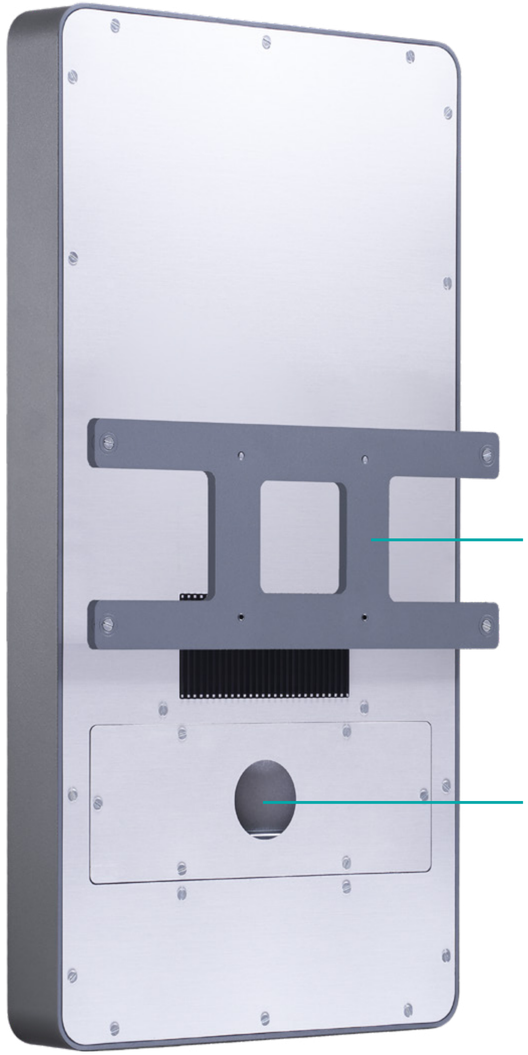
FEATURES

- Industrial Personal Computer All-in-One arm mounted
- LCD 21.5" wide
- Resolution 1920x1080
- LED backlight 50 K/h
- 16.7M colors
- Mounting horizontal VESA 100
- P-CAP Touch screen
- CPU Intel® Core™ i3-4010U Dual Core 1.7GHz SoC, Fanless
- 2x miniPCIe slots on the motherboard (mPCIe/mSATA cards)
- RAM memory 8 GB DDR3L SO-DIMM 204 PIN 1333/1600 MHz single channel
- SSD 256 GB SATA 2.5"
- 1 serial port RS232
- 4 USB (3.0) on the back , 1 on the front
- 2 DP video ports (DP active cable required)
- 2 Ethernet ports 10/100/1000 Mbps RJ45 - Intel I210 / I218
- Power supply 24 VDC
- Protection degree IP65
- Operating Temperature 0...50°C
- Storage Temperature -20..+65°C
- Humidity 85% no condensing

Front view

Back view

LCD 21.5” Touch
1920 x 1080



VESA arm
attachment

Compatible with
any cable gland
(ø 42mm/ IP69K)

Portrait Configuration

Landscape Configuration

Configuration

1 button of your choice + RFID

Empty slots

Custom button slots

1 button emergency

7 button slots + 1 emergency

Many options for different users

Thanks to its high level of configurability, ERGO perfectly embodies the new concept of human-machine interface 4.0. The device is equipped with a flat capacitive multi-touch screen and a 21.5" TFT display.

RFID option

1 button of your choice

Configuration

Empty slots

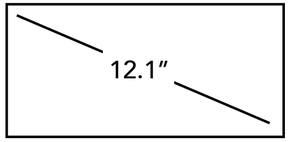
Custom button slots

1 button emergency

7 button slots + 1 emergency

+

Display LCD touch 12.1”

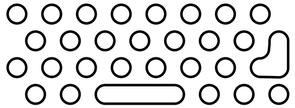


Many options for different users

Thanks to its high level of configurability, ERGO perfectly embodies the new concept of human-machine interface 4.0. The device is equipped with a flat capacitive multi-touch screen and a 21.5” TFT display.

It also gives the user a choice of numerous configuration options, including a dual 12.1” visual area, touch keyboards and additional buttons.

Full QWERTY Keyboard



Configuration

WEB PANEL

HMI

HMI+SOFTPLC

ERGO with Integrated HMI solution.

All in one product that do combine the flexibility of an industrial PC with the real time performance of a powerful HMI with integrated softPLC, motion and Ethercat master fieldbus.

Main 21.5” display with capacitive touch screen.

PC based applications.

Scada, data collection and analisys, web based applications.

Additional 12.1” display with capacitive touch.

Powerful HMI with more than 100 communication drivers.

Integrated real time soft PLC based on the IEC 61131 standard.

ESA Softmotion function blocks based on the PLCOpen standard.

Ethercat master stack for real time communication with remote I/O and drives.

ERGO

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS (MORE CONFIGURATONS AVAILABLE ONLINE ON OUR WEB TOOLCONFIGURATOR)

MODEL	Embedded ARM ERGO122	PC Control ERGO222	Monitor ERGO322
Versions	- Touch Capacitive - Full Glass	- Touch Capacitive - Full Glass - Dual Touch Capacitive 120° + Keyboard Touch - Dual Touch Capacitive 120° + 12"" HMI Touch"	- Touch Capacitive - Full Glass - Dual Touch Capacitive 120° + Keyboard Touch - Dual Touch Capacitive 120° + 12"" HMI Touch"
General			
Bezel /Chassis	Aluminum /Sheet Steel	Aluminum /Sheet Steel	Aluminum /Sheet Steel
Mounting	Portrait | Landscape	Portrait | Landscape	Portrait | Landscape
	VESA 100	VESA 100	VESA 100
Power Supply (Vdc)	12...32 VDC	15...36 VDC	18...30 VDC
Consumption (W)	24W for ARM base+ 24W for display keyboard (if any)	45 - 50 W for PC base + 24W for display keyboard (if any)	40W for monitor + 24W for display keyboard (if any)
Operating Temperature (°C)	-10 … + 50 (non condensing)	-10 … + 50 (non condensing)	-10 … + 50 (non condensing)
Storage Temperature (°C)	-20 … + 65	-20 … + 65	-20 … + 65
Humidity	90% (non condensing)	90% (non condensing)	90% (non condensing)
Protection degree (all)	IP65	IP65	IP65
Certifications	CE / UL	CE / UL	CE / UL
Display Size 1	21.5" true flat multi-touch screen	21.5" true flat multi-touch screen	21.5" true flat multi-touch screen
Display Technology	TFT / 16,7 M colors / LED backlight	TFT / 16,7 M colors / LED backlight	TFT / 16,7 M colors/ LED backlight
Display Brightness (cd/m²)	300	300	300
Contrast	5000:1	5000:1	5000:1
Viewing Angle H-V	89/89/89/89	89/89/89/89	89/89/89/89
Display Resolution (pixel)	1920x1080	1920x1080	1920x1080
Backlight life (hours)	50K	50K	50K
Touch Technology	Capacitive	Capacitive	Capacitive
Video input			DVI + VGA
Operating systems	Linux	Windows7 - Windows10 - WES7	
CPU Fanless Celeron 4G	Quad Core i.MX6 1.2 GHz Cortex A9 Linux	Celeron quad core J1900 2,0 GHz (2,42GHz) – 10W	
CPU Fanless Intel® Core™ 4G		Intel Core i3-4010U 1,7GHz / i7-4650U 1,7GHz (3,3GHz) – 15W	
RAM	2 GB		
FLASH	8 GB		
LAN	LAN 1xGb RJ45 - 1x10/100Gb RJ45		

MODEL	Embedded ARM ERGO122	PC Control ERGO222	Monitor ERGO322
RAM (Celeron quad core)		on board 4GB DDR3L 1066/1333MHz - dual channel -	
RAM (Fanless Intel® Core™)		up to 8GB DDR3L SODIMM 1333/1600MHz 204 pin -single channel-	
RS232 / RS485	1x RS232/RS485	1x RS232 + 1x RS485	
USB Ports 2.0/3.0 rear	2x 2.0	1x 2.0 + 1x 3.0 cpu J1900 / 4x 3.0 cpu Intel®Core™	1x USB 2.0 type A – rear 1x USB type B
Ethernet Celeron J1900		2x 1Gb RJ45 Intel I210	
Ethernet i-Core™ i3/i7		2x 1Gb RJ45 Intel I210/I218	
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	
Drives (internal)		HDD min. 500GB / SSD min. 64GB / mSATA min.32GB (options)	
Display Size 2 (only on dual Touch)	-	12.1" true flat multi-touch screen	12.1" true flat multi-touch screen
Display Technology		TFT / 16,7 M colors / LED backlight	TFT / 16,7 M colors/ LED backlight
Display Brightness (cd/m²)		400	400
Contrast		800:1	800:1
Viewing Angle H-V		80/80/65/80	80/80/65/80
Display Resolution (pixel)		1920x1080	1920x1080
Backlight life (hours)		50k	50K
Touch Technology		Capacitive	Capacitive
Operating systems		Linux |WEC7	Linux |WEC7
Keyboard Extension | HMI Extension	-	HTML5 Web Browser + Touch keyboard	HTML5 Web Browser + Touch keyboard
	-	"Capacitive HMI 12,1"" + 2 Ethernet port 10/100 Mbps RJ45, + Crew + Everyware + Codesys + Esa Motion Function Blocks Library"	"Capacitive HMI 12,1"" + 2 Ethernet port 10/100 Mbps RJ45, + Crew + Everyware + Codesys + Esa Motion Function Blocks Library"
Push button extension	up to 8 x 22 mm standard push-buttons, switches, emergency button, USB, RFID etc.	up to 8 x 22 mm standard push-buttons, switches, emergency button, USB, RFID etc.	up to 8 x 22 mm standard push-buttons, switches, emergency button, USB, RFID etc.

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