CIMON - Industrial HMI

FEATURES

- ***Fanless Design Dissipates Internal Heat Generated***
- ***High Definition, Abundant Color***
- ***TFT LCD Structure***
- ***Slim and Simple Structure***
- ***Fast Response and Excellent Reliability***
- ***Multimedia System***
- ***Various Automation Control Programs***
- ***All-in-One Embedded Board Applied***
- ***Windows Embedded XP POSReady 2009***
- ***P/G, the O/S Protection Utility is Installed***

DESCRIPTION

The Industrial HMI line offers high performance, excellent stability, and reliability. Its Intel ATOM N450 processor allows for clock speeds up to 1.66 GHz. The CIMON line of Industrial HMIs comes in 12", 15" and 19" displays with touch operation. The industrial HMI module offers the capabilities of a PC with its VGA ports, printer port, and multiple Ethernet and Serial Ports. Capable of processing even the simplest tasks, the Industrial HMI can also easily handle complicated tasks such as data algorithm, pre-treatment operation, data storage, and connection with other systems. The ATOM processor allows the Industrial HMI to support simultaneous communication without compromising reliability. The efficient fanless design maintains inner temperature while reducing maintenance costs. Easily transfer CIMON-HMI project files using USB ports and networks or simply connect a keyboard and mouse and edit a project directly from the unit.

GENERAL SPECIFICATIONS

Item	Descprition
Permitted Voltage	24 VDC or 100 ~ 240 VAC
Ambient Temperature	0° ~ 50°C
Storage Temperature	-20° ~ 60°C
Ambient Humidity	10% ~ 90%RH (Non-Condensing, Wet Bulb Temperature: 39°C Maximum)
Storage Humidity	10% ~ 90%RH (Non-Condensing, Wet Bulb Temperature: 39°C Maximum)
Air Pressure Vibration Resistance (Availment Altitude)	800 ~ 1,114hPa (Up to 2,000m/6,5000ft)
Dust	0.1mg/m^3 or Less
Pollution Degree	Less than Equal to Pollution Degree 2
Corrosive Gases	Free from Corrosive Gases
Vibration Resistance	IEC61131-2 Compliant Occasional Vibration 10 ~ 75Hz 0.075mm, 57 ~ 150Hz 9.8m/s^2 Continuous Vibration 10 ~ 57Hz 0.035mm, 57 ~ 150Hz 4.9m/s^2 X,Y,Z direction for 10 cycles (80 minutes)
Noise Resistance	±2kV, 1μS
Electrostatic Discharge Immunity	Contact Sischarge 4kV (IEC61000-4-2)
	Air Discharge 8kV

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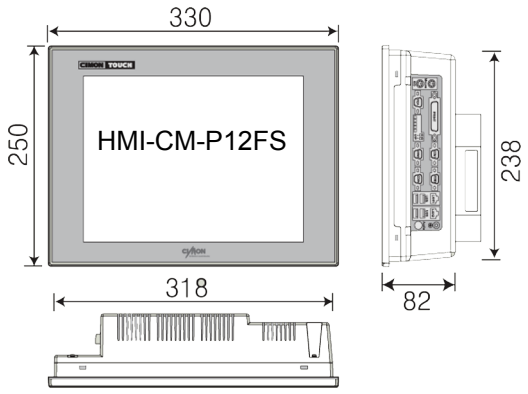
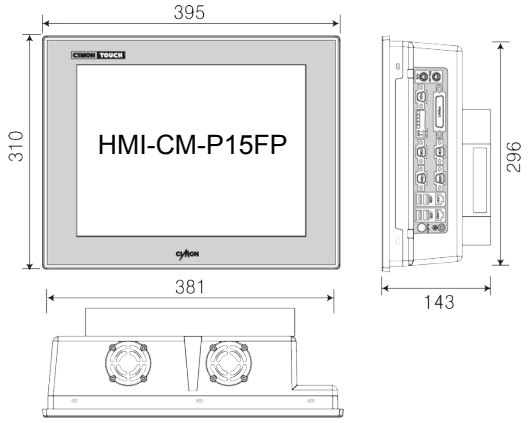
CIMON - Industrial HMI

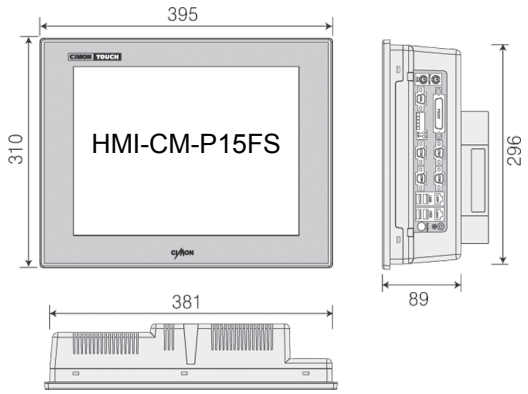
ITEM SPECIFICATIONS

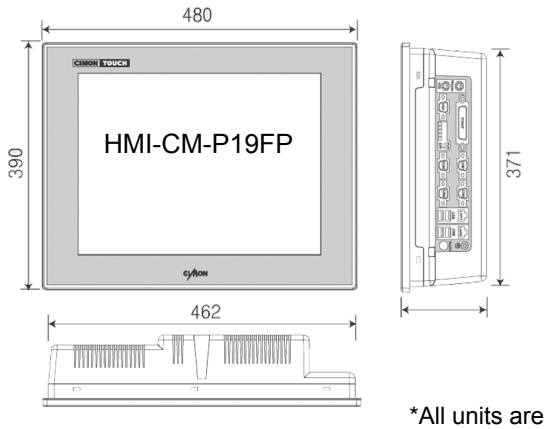
Type	P12FS	P15FS	P15FP	P19FP
Touch Screen	1024 x 768 (Analog 8- Wire Resistive)			1280 x 1024
Color	262K	16.7M		
Touch Controller	PenMount USB Controller			
CPU	Intel ATOM Processor N450 1.6 GHz (Fanless)			
RAM	1GB DDR2 SDRAM			
Storage	64 GB SSD (CF card 4GB, 8GB Options)			
Graphic Chip	Intel GMA 3150 Integrated			
Display	12.1" TFT LCD	15" TFT LCD		19" TFT LCD
	CRT Output (15P DSUB)			
Serial	COM 1: RS232C/422/485, COM 2-4: RS232C			
Ethernet	2 Gigabit Ethernet Ports			
Parallel	1 Port			
PS/2	Keyboard & Mouse			
USB	4 USB 2.0 Ports			6 USB 2.0 Ports
Audio	1 Port			
CD-ROM	None		1 Slot	
PCI Slot	None		1 Slot	
Operating System	Windows Embedded XP POS Ready 2009			
Utility Program	Enhanced Write Filter (EWF-Disk Image Safeguard) / Rescue (Factory Default Recovering Tool)			
Power	110~220 VAC			

ITEM DIMENSIONS









*All units are in mm

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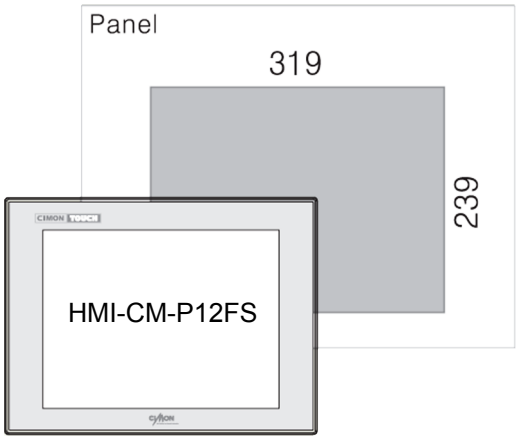
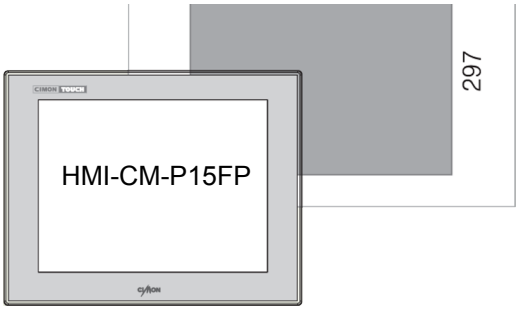
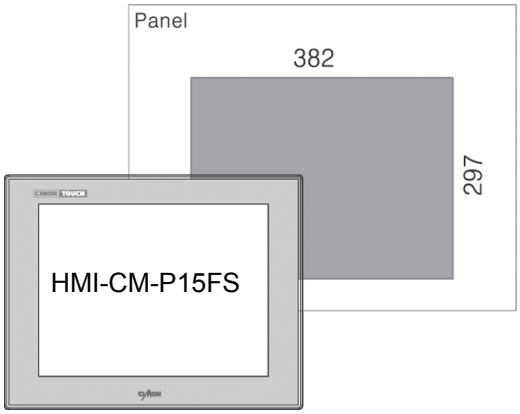
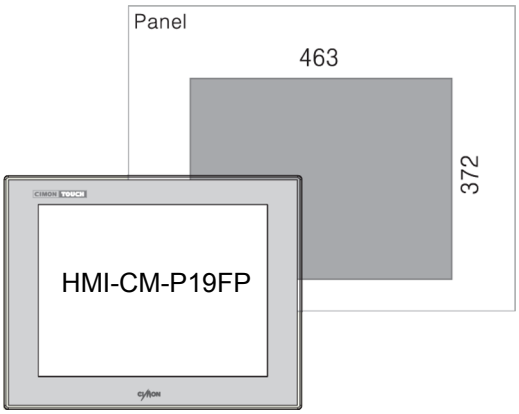
PANEL CUTOUT + DIMENSIONS

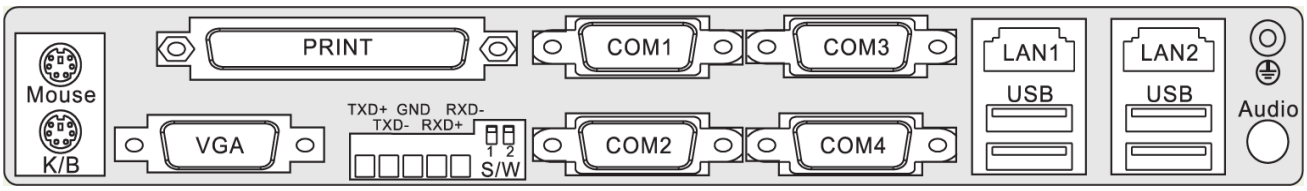








INTERFACE ARRANGEMENT



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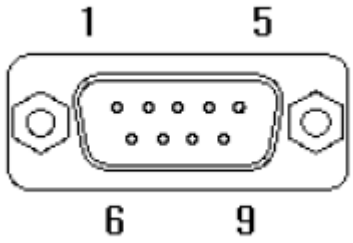
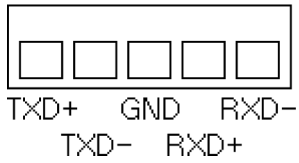
COM1: RS232C

This interface is used to connect the SCADA HMI to the host (PLC), via an RS-232C cable. When you use COM1 RS-232C port, you must not use COM1 RS-485-422 port.

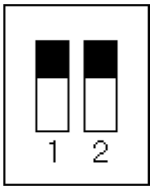
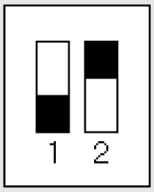
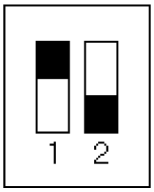
Connector	Pin #	Name	Description
	1	DCD	Data Carrier Detect
	2	RD	Receive Data
	3	TD	Transmit Data
	4	DTR	Data Terminal Ready
	5	SG	Signal Ground
	6	DSR	Data Set Ready
	7	RTS	Request To Send
	8	CTS	Clear To Send
	9	RI	Ring Indicator

COM1: RS-422/485

This interface is used to connect the SCADA HMI to the host (PLC) via an RS-422/485 cable. When you use COM1 RS-422/485 port, you must not use COM1 RS-232C port.

Connector	Pin No.	Name	Description
	1	TXD+	Transmit Data +
	2	TXD-	Transmit Data -
	3	GND	Ground
	4	RXD+	Recieve Data +
	5	RXD-	Receive Data -

Communication Switches

Type	Switch
RS-232 (Default)	
RS-485	
RS-422	

NOTE

- If you connect the SCADA HMI to the host via an RS-485 cable (2 wire), you must connect the TXD+ and TXD- lines.
- The RS-485 of the SCADA HMI runds under auto toggle mode.
- To reduce the risk of damaging the RS-422 circuit, be sure to connect the SG terminal.

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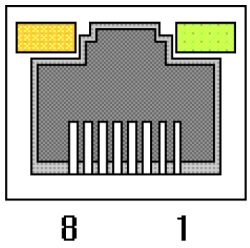
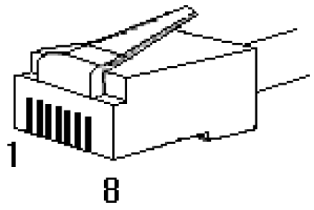
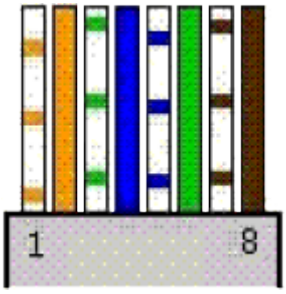
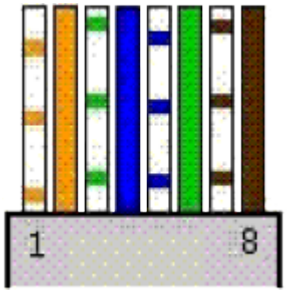
Ethernet

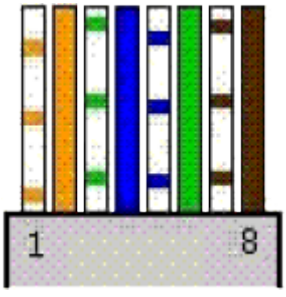
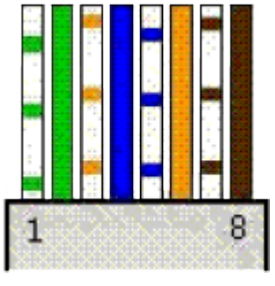
This interface complies with the IEEE802.3 for Ethernet (10 Base-T / 100 Base-TX).

RJ45 Front View	RJ45 Side View
	

Direct Cable: Host <-> Hub

Host Cable	Pin #	Color	Color	Pin #	Hub Cable
	1	Orange/W	Orange/W	1	
	2	Orange	Orange	2	
	3	Green/W	Green/W	3	
	4	Blue	Blue	4	
	5	Blue/W	Blue/W	5	
	6	Green	Green	6	
	7	Brown/W	Brown/W	7	
	8	Brown	Brown	8	

Direct Cable: Host <-> Host

Host Cable	Pin #	Color	Color	Pin #	Host Cable
	1	Orange/W	Green/W	1	
	2	Orange	Green	2	
	3	Green/W	Orange/W	3	
	4	Blue	Blue	4	
	5	Blue/W	Blue/W	5	
	6	Green	Orange	6	
	7	Brown/W	Brown/W	7	
	8	Brown	Brown	8	

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ESSENTIAL SAFETY PRECAUTIONS

- Do not create Industrial HMI graphic object that could possibly endanger the safety of the equipment and personnel. Damage to the Industrial HMI can cause an output signal to remain ON or OFF continuously and can cause a major accident. Therefore, design all monitoring circuits using a limit switch to detect incorrect device movement.

- Do not create Industrial HMI graphic objects that control machine safety operations, such as an emergency stop. Switches to control machine safety operations must be installed as separated hardware switches.

- Design your system so that communication fault between the Industrial HMI and the controller of the equipment can not make the equipment malfunction.

- Do not use the Industrial HMI as a warning device for critical alarms that can cause serious operator injury, machine damage or production stoppage.

- The Industrial HMI is not appropriate for use with aircraft control devices, aerospace equipment, central trunk data transmission (communication) devices, nuclear power control devices, or medical life support equipment, due to these devices' inherent requirements of extremely high levels of safety and reliability.

- When using the Industrial HMI with transportation vehicles (trains, cars and ships), disaster and crime prevention devices, various type of safety equipment, non-life support related medical devices, etc. redundant and/or fail-safe system designs should be used to ensure the proper degree of reliability and safety.

- After the backlight of the Industrial HMI burns out, the touch panel of the Industrial HMI is still active. if an operator does not notice that the backlight burned out and touches the panel, a potentially dangerous machine miss-operation can occur. Therefore, do not use the Industrial HMI graphic objects for the control of any equipment safety mechanisms, such as emergency stop switches, etc. that protect humans and equipment from injury and damage.

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INSTALLATION

- Be sure to securely connect all cable connectors to the Industrial HMI. A loose connection may cause incorrect input or output.
- High voltage runs through the Industrial HMI do not disassemble the Industrial HMI, otherwise an electric shock can occur.
- Do not modify the Industrial HMI unit because a modified Industrial HMI can cause a fire or an electric shock.
- Do not use the Industrial HMI near flammable gasses because an explosion can occur.

WIRING

- To prevent an electric shcok, be sure to confirm that the power cord of the Industrial HMI is not connected to the main power before connecting any cord, cables or line to the Industrial HMI.
- Do not use power beyond the specified voltage range of the Industrial HMI. Doing so may cause a fire or an electric shock.
- Ground the field ground line of the Industrial HMI separately from field ground lines of other units. Putting these field ground lines too close may cause an electric shock or unit malfunction. Be sure to use a grounding resistance of 100Ω or less and a 2 mm^2 or thicker wire, or applicable standard of your country.
- Correctly wire the Industrial HMI, be sure that the rated voltage and terminal layout are within the designated range. If the voltage supplied differs from the rated voltage, or incorrect wiring or grounding is performed, it may cause a fire or unit malfunction.
- Use only the designated torque to tighten terminal block screws of the Industrial HMI . If these screws are not tightened firmly, it may cause a short circuit, fire or Industrial HMI malfunction.
- Be careful that the metal filings and wiring debris do not fall into the Industrial HMI; they can cause a fire, Industrial HMI malfunction, or incorrect operation.

MAINTENANCE

- The Industrial HMI uses a lithium battery to back up its internal clock data. If the battery is incorrectly replaced, the battery may explode. To prevent this, please do not replace the battery yourself. When the battery needs to be replaced, please contact Anaheim Automation.
- The LCD contains a powerful irritant and if for any reason the panel is damaged and this liquid contacts any part of your body, be sure to wash that area with running water for 15 minutes. If any of this liquid enters your eye, flush your eye for 15 minutes with running water and contact a physician.

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