CIMON XPANEL

INDUSTRIAL OPERATING TOUCH PANEL

4".7".10".12".15" | HYBRID | XPANEL-DESIGNER

INDUSTRIAL OPERATING TOUCH PANEL

CIMON XPANEL takes your HMI experience to the next level. Our products offer proven reliability for any industrial environment and our intuitive designing software enables rapid project development.

PRODUCT PERFORMANCE

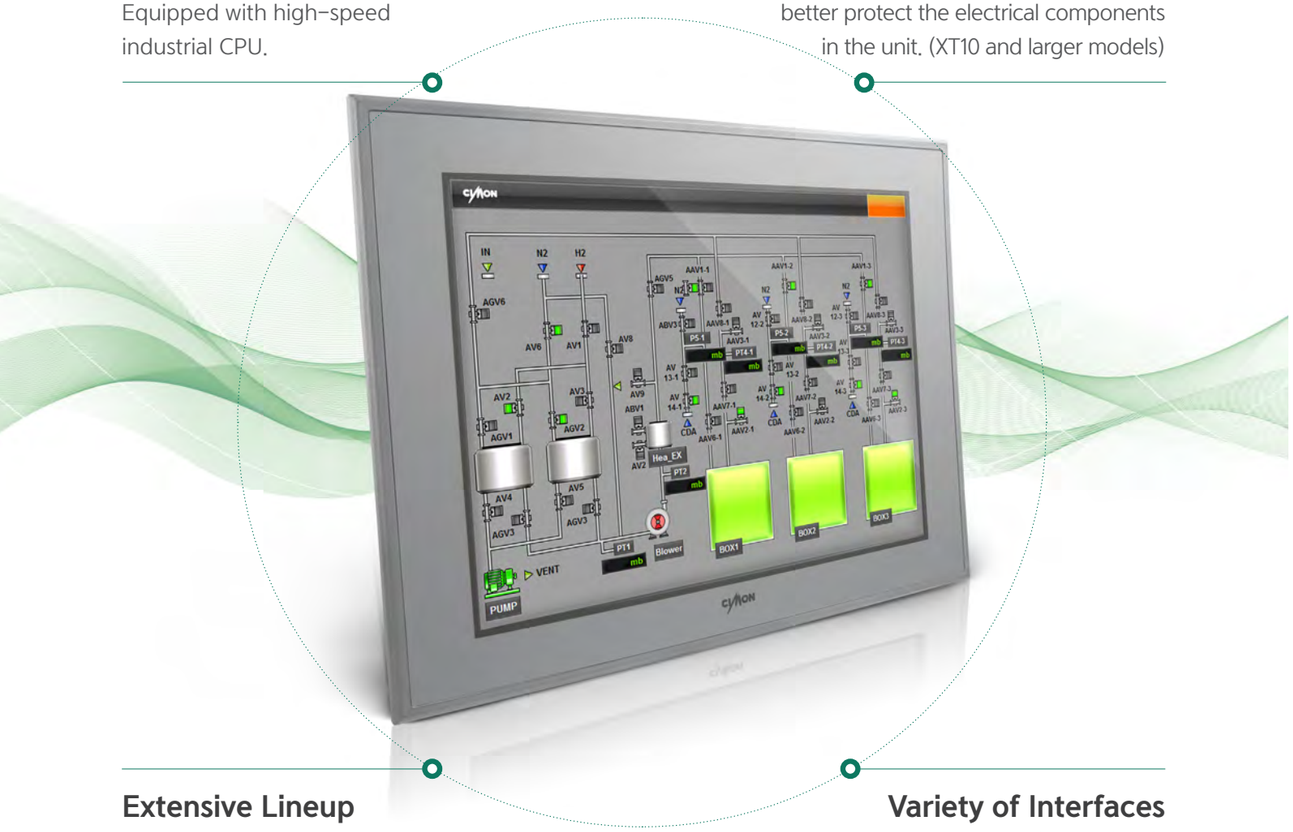
HARDWARE PERFORMANCE

High-speed CPU processor

Equipped with high-speed industrial CPU.

Aluminum Die-Casted Front Bezel

Improved heat and shock resistance better protect the electrical components in the unit. (XT10 and larger models)



Extensive Lineup

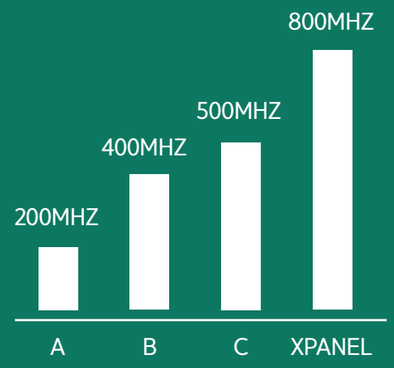
Available in a wide range of display size, from 4” to 15”.

Variety of Interfaces

Includes Ethernet, Serial (RS232/485), USB, and SD card slot options.

Ultrafast CPU Processor

Equipped with high-speed industrial grade CPU which handles complex scripts and graphics processing with ease, adding stability to the system.



Operating Temperature of 0 ~ 60℃

Reliable operation even in extreme conditions allows users to monitor and control their facilities in such regions.

High-Definition Display

A maximum of 16.7M color XGA display allows the expression of delicate and sophisticated details and industrial grade LCD panel generates low power and heat while ensuring full brightness and vividness.

Extreme Durability

All models are IP65 certified, and the front touch screen film is fortified with special formula to add scratch resistance.

PRODUCT PERFORMANCE

SOFTWARE PERFORMANCE

Recipe

A recipe is a collection of data that can be easily changed with the user's pre-defined values. For example, in a cookie production factory that produces different types of cookies, the operator can easily modify the ingredient data values to change between different cookie flavor profiles. The recipe settings can be simply created, modified, or deleted during production. Also, recipe data can be imported and exported during runtime.

Data Logging

Raw data or internal data can be recorded when a certain criterion is met. The data is internally collected in memory blocks or model. The operator can convert the data file into a CSV format. USB memory or SD card can also be connected to the XPANEL, allowing the user to save as much data that the storage unit allows.

Script

Engineers can easily build a program by using a script which is similar to the C language. Scripts allow you to operate various actions, such as opening a page or changing device-settings. Scripts can be triggered and executed in different ways: automatically, manually, periodically, or upon opening/closing of a page.

Schedule

Schedule allows the user to schedule a program to be run at a specific time. Scheduled events can be set to execute every day, week, month, or year, allowing users an easier management of the facility.

Alarm

Alarms are used to monitor data values and to inform the users about specific operating conditions. Alarm information and history can be checked on the display. An unlimited number of alarms can be created and alarms can be categorized into a maximum of 10 groups. Depending on the alarm group, specific scripts can be run to take appropriate actions. Alarm history can also be exported as a CSV file and read with MS Excel. Moreover, alarm messages can appear at the bottom of the screen like a subtitle so that an operator can see the current screen and the alarm message at the same time.

Data Bridge

XPANEL can act as a bridge and allow exchange of data between other devices. Devices that are connected to different Serial ports, or Serial and Ethernet ports can exchange data.

Multilingual Feature

XPANEL supports virtually every language to be displayed on the screen. Also, all fonts provided by Windows can be used.

(*Note: The use of illegally downloaded fonts can be subject to legal action, and Cimon will not be held liable in such cases.)

Security

To allow the corporation to protect its system and employees, XPANEL provides security settings. This feature protects the system from unauthorized access or unskilled manipulation. Also, by using a maximum of 10 security levels, an administrator can assign different functions to different operators.

Distribution Management

–Supports RFID reader to manage the logistics of the distribution system more efficiently. (Compatible with Omron, Sick, and LS products)

–Compatible with the bar-code readers in serial or USB type and it is possible for the operator to display the barcode on the screen. ('Code 39' function)

VNC

XPANEL provides a solution for monitoring and controlling the system from anywhere. With Ethernet connection. The system can be monitored and controlled with a PC or a smartphone.

Screen Capture

Screenshots of the current screen can be taken during runtime. The image is saved as a bitmap file and can be used when creating a report for the management.

SMS

When an alarm occurs in the system, XPANEL can send a text message to the operator immediately. This ensures that an operator can take appropriate measures to resolve the problem promptly.

Simulator

The operator can virtually simulate the project by using the 'Simulator'. This feature can be used when there are no physical devices (XPANEL and PLC) and there is a need to test a project. The simulator includes a remote control feature which can change the PLC address for a more realistic simulation.

Remote Diagnostic Service

Our technicians can connect to your XPANEL through Ethernet and provide technical support. This allows for a quick remediation due to the status of the XPANEL unit being analyzed without a site visit.

PRODUCT PERFORMANCE

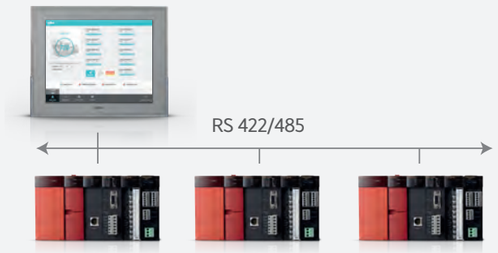
NETWORK PERFORMANCE

CIMON XPANEL easily connects to other devices through a plethora of communication drivers we offer, making it possible to provide powerful flexibility for building your control system.

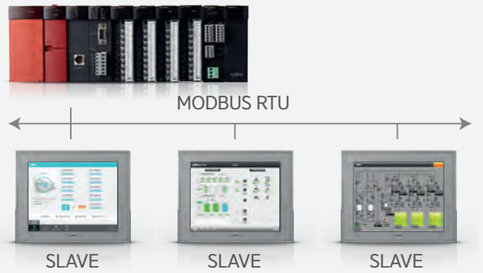
SERIAL NETWORK

1 : 1

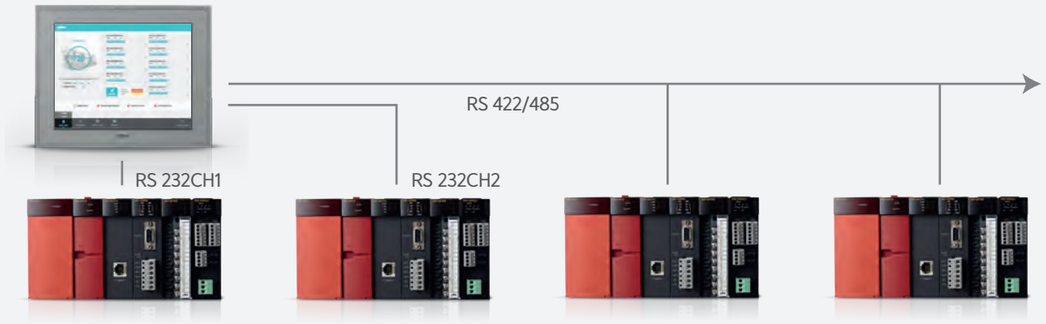
N : 1



1 : N

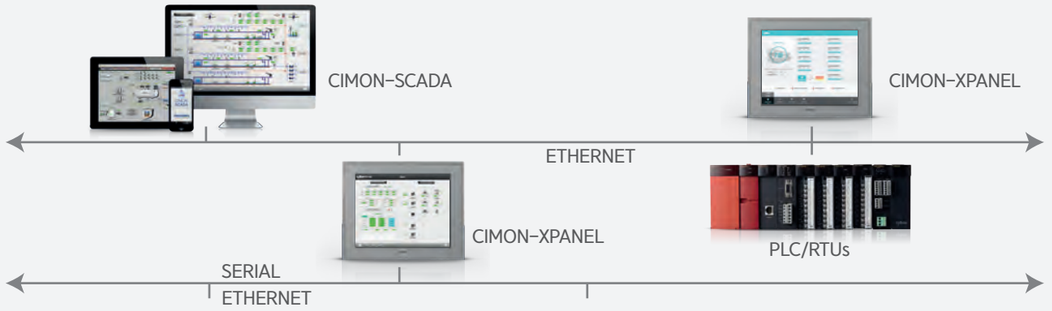


MODBUS MASTER / SLAVE

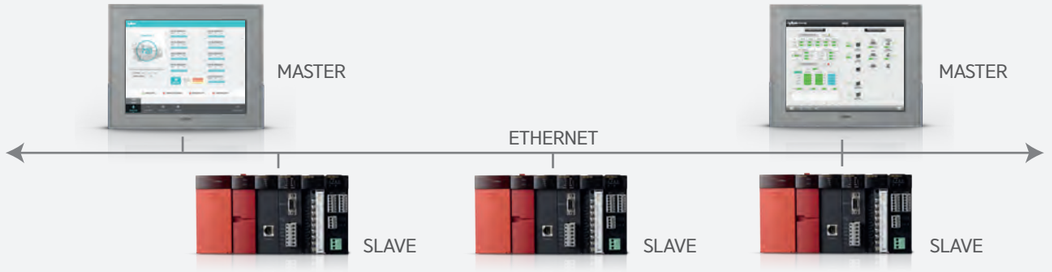


SERIAL MULTI NETWORK

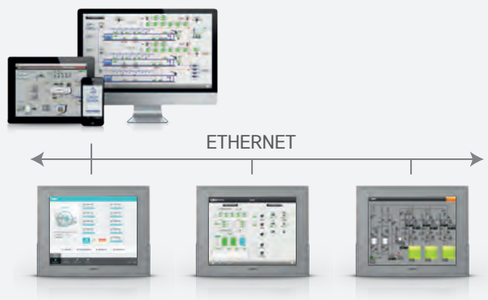
CIMON NETWORK



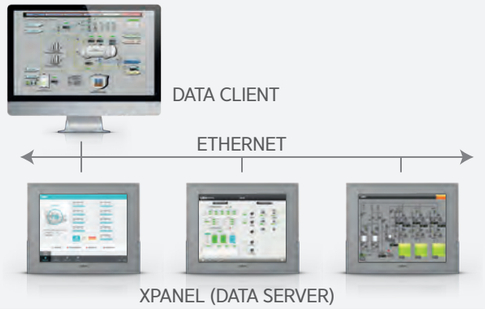
ETHERNET NETWORK



CIMON ETHERNET



VNC



ETHERNET MULTI NETWORK

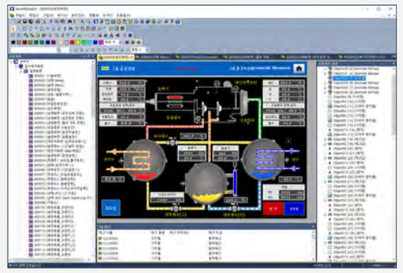
PRODUCT PERFORMANCE

SOFTWARE

Xpanel Designer can make your facility smarter and more powerful.

User-Friendly Development Software

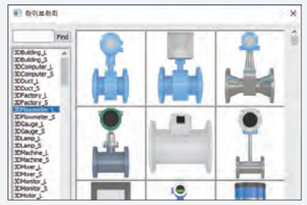
Xpanel designer V2.52



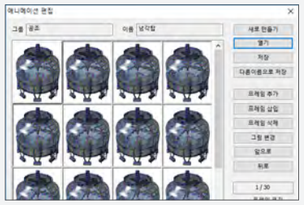
- **Drag-and-Drop function**
  Just drag and drop images. It's that easy.
- **Xpanel-R**
  It's possible to use Xpanel Designer in CIMON PPC (Windows 7/10 OS)

Smart HMI and Software

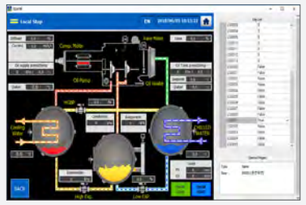
You can design your system with library images.



↗ Xpanel Designer provides various graphical objects to allow rapid project development.

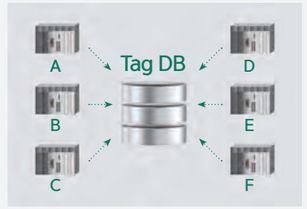


↗ You can create your own animated objects.



↗ You can preview the project on a PC with the simulator.

Convenient and Reliable HMI



↗ All the PLC address data can be identified and modified in the database.

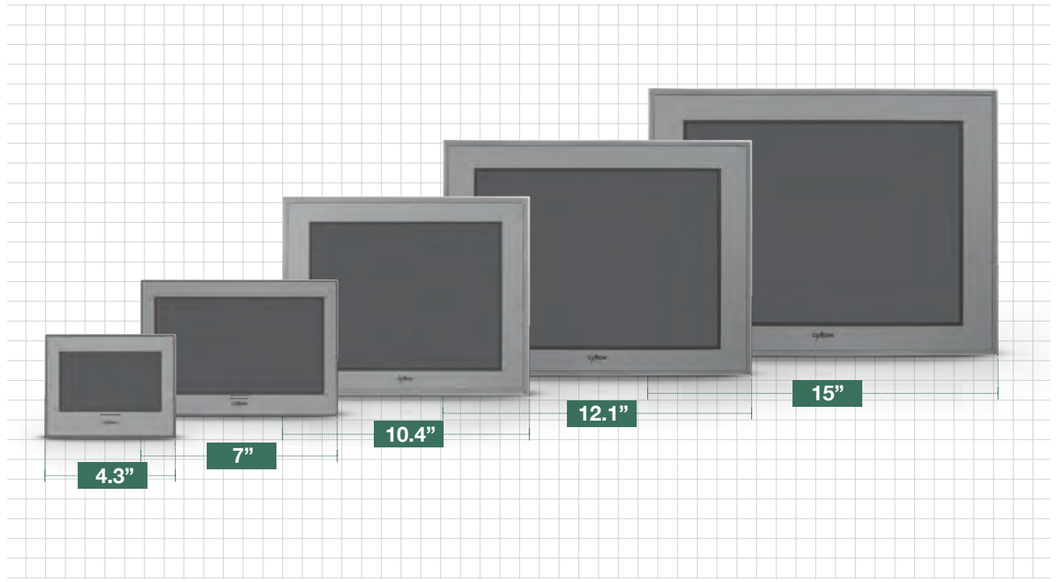
↗ You can create pages from numerous language choices.

↗ Front Aluminum die-casted bezel increases the durability of XPANEL.

CIMON-XPANEL SPECIFICATION

PRODUCT SPECIFICATION

XPANEL comes in sizes that are suitable for small to large scale facilities. Also, its proven reliability and performance ensure that maximum value is provided in every industrial environment.



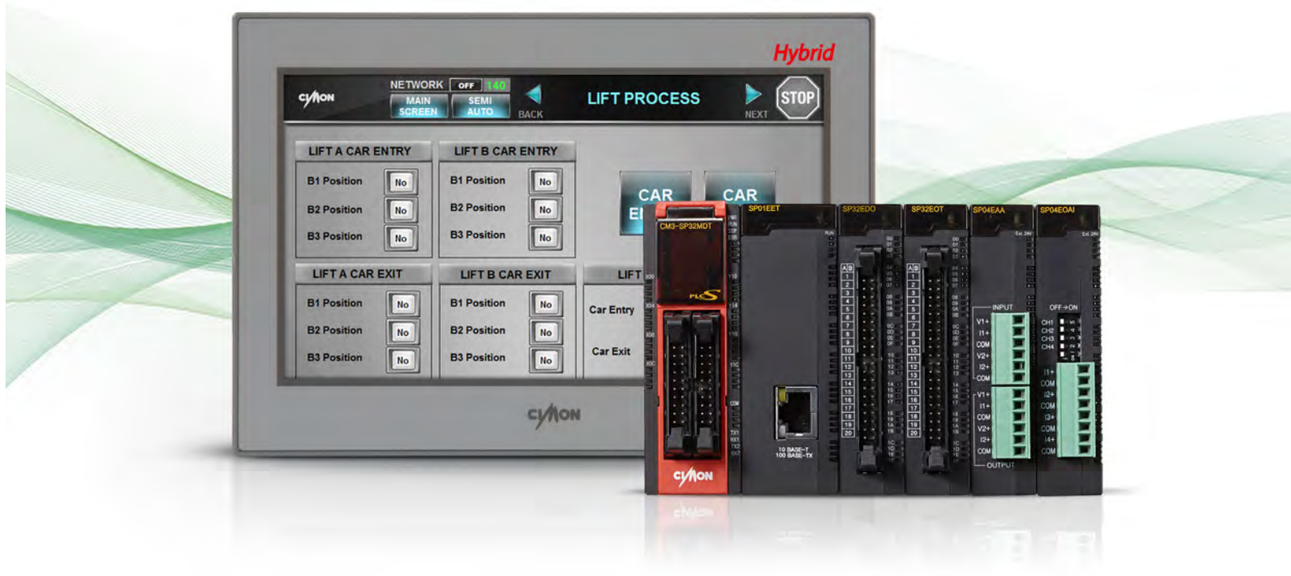
Item	Specification
General Voltage	DC24V or AC100-240V
Operating Temperature	0℃~ 50℃
Preserving Temperature	-20℃~ 60℃
Operating Humidity	Relative Humidity 10% ~ 85%, (Below 29℃, no condensation)
Preserving Humidity	Relative Humidity 10% ~ 85%, (Below 39℃, no condensation)
Environment Condition	800hPa ~ 1114hPa (Below 2000m)
Dust	≦ 0.1mg/㎥
Pollution Degree	Pollution degree 2
Air Condition	Avoid corrosive gas and excessive dust
Vibration Resistance	SSD storage type 9.8m/S2, 10Hz~25Hz in X,Y,Z (80min)
Noise Immunity (Impulse Noise)	Impulse, EFT/Burse, Surge, ±2KV, 1uS
Electrostatic Discharge Immunity	4kV(IEC61000-4-2 LEVEL 3), 8kV(Air discharge)

Type		XT04CD-DN	XT04CD-DE	XT07CD-DN	XT07CD-AN	XT07CD-DE	XT07CD-AE
Panel Size		4.3"		7"			
Resolution		480 x 272		800 x 480			
LCD		Color TFT					
Color		65K Colors					
Luminance		400 cd/m²					
Memory		128MByte DDR2 SDRAM					
Storage		128MByte SLC NAND Flash					
Operating System		Windows CE 6.0					
Programming Tool (HMI)		Xpanel Designer					
Audio		None				1 Port	
Interface	Ethernet	None	10/100 BaseT	None		10/100 BaseT	
	Serial (COM1)	RS232C					
	Serial (COM2)	RS422/485					
	Serial (COM3)	None					
	USB Host	1 Port					
	Tool Port	1 Port					
	SD Card Slot	None				1 Slot	
Input Power		DC24V		DC24V	AC100-240V	DC24V	AC100-240V
Dimension(mm)		128 X 102 X 50		185 X 127 X 50			
Panel Cut(mm)		120 X 94		177 X 119			
Enclosure		Plastic					

Type		iXT10CD-D	iXT10-CD-A	iXT12CD-A	iXT15CD-A
Panel Size		10.4"		12.1"	15"
Resolution		800 x 600			1024 x 768
LCD		Color TFT			
Color		262K Colors			16.7M Colors
Luminance		400 cd/m²		450 cd/m²	400 cd/m²
Memory		256MByte DDR2 SDRAM			
Storage		128MByte SLC NAND Flash			
Operating System		Windows Embedded Compact 7			
Programming Tool (HMI)		Xpanel Designer			
Audio		None			
Interface	Ethernet	10/100 Base T			
	Serial (COM1)	RS422/485			
	Serial (COM2)	RS232C			
	Serial (COM3)	RS232C			
	USB Host	1 Port			
	Tool Port	1 Port			
	SD Card Slot	1 Slot			
Input Power		DC24V	AC100-240V		
Dimension(mm)		280 X 220 X 47		330 X 250 X 83	395 X 310 X 89
Panel Cut(mm)		267 X 207		319 X 239	382 X 297
Enclosure		Aluminum			

CIMON HYBRID XPANEL

Two devices, HMI and PLC, are combined into one product for your convenience.



Available in VESA Wall Mount

The VESA mount configuration provides a clean and safe installation by mounting to articulating arms.

PLC-S Expansion

It is possible to add up to 2 PLC-S modules after mounting an option module.

Separated Terminal

The product can be easily connected with other devices. The USB host allows the use of both Xpanel Designer and CICON software.

PLC-S Embedded

The product is fully compatible with PLC-S expansion module.

Providing High Reliability

The product shares reliability standard with PLC. (CIMON internal test standard)

OPC UA Connectivity

Hybrid Xpanel supports OPC UA, which is a widely used communication protocol. It can securely connect to devices and the cloud as well.

- Device-level can be set from 1 to 15
- Allows an administrator to add, modify, and delete ID and password for the OPC UA security program.

HYBRID XPANEL SPECIFICATION

PRODUCT SPECIFICATION

General Specification

Items	Specification						Standards
Operating Temperature	–10℃ ~ 55℃						–
Preserving Temperature	–25℃ ~ 70℃						–
Operating Humidity	Relative Humidity 10 ~ 95%, No condensation						–
Preserving Humidity	Relative Humidity 10 ~ 95%, No condensation						–
Vibration Resistance	Frequency(pps)	Continuous Vibration		Intermittent Vibration		Count	IEC 61131–2
		Acceleration (㎨)	Amplitude (mm)	Acceleration (㎨)	Amplitude (mm)		
	5 ≤ f < 9, 9 ≤ f ≤150pps	–	1.75	–	3.5	10 times for each direction X, Y, Z	
	9 ≤ f ≤150pps	4.9 {0.5G}	–	9.8 {1G}	–		
Shock Endurance	▪ Maximum shock acceleration: 147㎨ (15G) ▪ Duration time: 11ms ▪ Pulse wave: a sine half–wave pulse (3 times for each direction ±X, ±Y, ±Z, total on 3 times)						IEC 61131–2
Noise Immunity	Square wave impulse noise	±2kV, For 10 consecutive minutes					CIMON Internal Test Standard
	Electrostatic Discharge Immunity	Voltage: ±4kV(Discharge by contact), ±8kV(Air Discharge)					IEC 61131–2 IEC 61000–4–2
	Radiated EMF Noise	80~1,000 MHz, 10V/m					IEC 61131–2 IEC 61000–4–3
	FAST transient burst Noise	Power Supply	±2kV				IEC 61131–2 IEC 61000–4–4
		Digital / Analog input output (AC)	±2kV				
		Digital / Analog input output (DC)	±1kV				
Ambient Conditions	Avoid corrosive gas and excessive dust						
Operating Altitude	≤ 2000m						IEC61131–2
Pollution Level	≤ 2						IEC61131–2
Cooling System	Air natural cooling						

HMI Part (Xpanel)

Model	HP07CD–AER HP07CD–DER	HP07CD–ANR HP07CD–DNR	HP07CD–AES HP07CD–DES	HP07CD–ANS HP07CD–DNS
LCD Size	7 inches			
LCD Type	TFT Color			
Color	65,536 colors			
Resolution	WVGA 800x480			
Backlight	LED			
Luminance	400cd/m2			
Touch Panel	Resistive 4 wire			
Memory	128MByte DDR2			
Storage Space	128MByte SLC NAND Flash			
SD Card	1 SD Slot	None	1 SD slot	None
COM1(HMI)	RS232C/RS422/RS485			
COM2(HMI)	RS232C (Internal)			
COM1(PLC)	RS232C		RS485	
COM2(PLC)	RS232C (Internal)			
Ethernet	10/100 BaseT	None	10/100 BaseT	None
USB Host	1 port			
Tool Port	1 USB device			
Audio	1 port	None	1 port	None
Voltage	–A: AC100–240V / –D: DC24V			
Power Consumption	9.6W			
OS	Windows CE 6.0			
Dimension(mm)	185 x 127 x 80.5			
Panel Cut(mm)	177 x 119			

Hybrid Xpanel Product Line–Up

Model	Standard
CM–HP07CD–DNR	HP07 + NO LAN + PLC(CPU, RS232C), DC 24V
CM–HP07CD–ANR	HP07 + NO LAN + PLC(CPU, RS232C), AC 100 – 240V
CM–HP07CD–DNS	HP07 + NO LAN + PLC(CPU, RS485), DC 24V
CM–HP07CD–ANS	HP07 + NO LAN + PLC(CPU, RS485), AC 100 – 240V
CM–HP07CD–DER	HP07 + LAN + PLC(CPU, RS232C), DC 24V
CM–HP07CD–AER	HP07 + LAN + PLC(CPU, RS232C), AC 100 – 240V
CM–HP07CD–DES	HP07 + LAN + PLC(CPU, RS485), DC 24V
CM–HP07CD–AES	HP07 + LAN + PLC(CPU, RS485), AC 100 – 240V

Option

Model	Specification
CM–HP–DM	HP07 DUMMY, for expansion of PLC–S modules
CM–HP–EAA	Analog module for HP07 (AI 2 channels, AO 2 Channels) (0 – 5V, 1 – 5V, 0 – 10V, –10 –10V, 0–20mA, 4 – 20mA)
CM–HP–EDR	Digital module for HP07 (DI 7 points, DO 5 points – Relay type)

PLC–S Part

Items		Descriptions
Power		DC 12 – 24V / 10W (Expanded by fully in 2 modules)
Program Control		Repetitive Operation, Time Driven Interrupt, Stored Program
Method for Controlling Input Output		Indirect method, Direct method by Instruction
Program Language		LD(Ladder Diagram), IL(Instruction List), SFC (Sequential Function Chart), FBD(Function Block Diagram)
Data Processing		32bit
Number of Instruction	Number of sequence	55
	Number of Application instruction	389
Execution Processing Speed (Basic Instruction)		200 ns/Step
Program Memory		10K Step
Number of I/O Point		384 Points
Run mode		Run, Stop, Remote Run, Remote Stop
Data preservation against power failure		Setting data and conservation (Latch) in K device
Count of Program Block		127
Blocks of Program (max 127)	Scan	4 types of scan programs including standard scan program (Subroutine, Hot / Cold initialization, Periodic interrupts)
	Periodic Interrupts	Able to register for scan program form up to 16 (Minimum period: 10ms)
	Special Configuration	4 types of special programs including PID program (High-speed Counter, Positioning control, Input module filtering, etc.)
	Comm.	4 types of programs including User protocol program (MODBUS/RTU Master, High PLC Link, etc.)
	Etc.	SFC Program, FBD (Function Block Diagram)
Auto diagnoses		Monitoring delay of processing, problems of memory, I/O, Battery, Power error
Restarting		Hot Restart, Reboot
Expansion		CM-HP-EAA/CM-HP-EDR/CM-HP-DM module + 2 PLC-S modules
Data Memory	X	1024 points (X0000 – X063F)
	Y	1024 points (Y0000 – Y063F)
	M	8192 points (M0000 – M511F)
	L	4096 points (L0000 – L255F)
	K	4096 points (K0000 – K255F)
	F	2048 points (F0000 – F127F)
	T	512 points (T0000 – T0511)
	C	512 points (C0000 – C0511)
	S	100 states x 100 set (00.00 – 99.99)
	D	10000 words (D0000 – D9999)
	Z	1024 words (Call Stack : Z0000 – Z0063, Z1000 – Z1063)
	R	16 points (Index)
High-speed Counter		20Kpps, 2 phase 2 channels.(10kpps when operating 2 channels together) 1 Phase pulse input + Direction signal
PID		32 channels, Auto-tuning
RTC		Operated by internal battery (CR2032 Backup)
Communication Channel		USB (CICON programming)
		Option: RS232C 1 channel or RS485 1 channel
Etc.		Floating point arithmetic, Modification in Run status, etc.

Optional Expansion Module (PLC–S)

Digital I/O

Model	Type	Standard
CM3-SP32EDO	DI-32	DI 32 pts, DC 24V
CM3-SP32EOT	DO-32	DO 32 pts. DC 24V TR (Sink)
CM3-SP32EOC	DO-32	DO 32 pts. DC 24V TR (Source)
CM3-SP16EOR	DO-16	DO 16 pts, Relay Output
CM3-SP32EDT	DI-16 / DO-16	DI 16 pts, DO 16 pts, TR (Sink)

Analog I/O & Temp. Measuring

Model	Type	Specification
CM3-SP04EAO	AI-4	AI 4 channels (0 – 5V, 1 – 5V, 0 – 10V, -10 -10V, 0 – 20mA, 4 – 20mA)
CM3-SP04EAA	AIO-4	AI 2 channels / AO 2 channels (0 – 5V, 1 – 5V, 0 – 10V, -10 -10V, 0-20mA, 4 – 20mA)
CM3-SP04EOAI	AO-4	AO 4 channels current output (4-20mA)
CM3-SP04EOAV		AO 4 channels voltage output (-10 -10V, 0 – 10V)
CM3-SP04ERO	Temperature measuring	4 points RTD (PT100, JPT100, PT1000, NI1000)
CM3-SP04ETO		4 points TC (K, J, E, T, B, R, S, N)

Communication

Model	Type	Protocol
CM3-SP02ERS	RS232C 1 channel, RS422/RS485 1 channel	CICON, CIMON HMI, MODBUS/RTU Slave & Master, Protocol program
CM3-SP02ERR	RS232C 2 channels	CICON, CIMON HMI, MODBUS/RTU Slave & Master, Protocol program
CM3-SP01EET	Ethernet (10BaseT, 100BaseTX)	CICON, CIMON HMI, MODBUS/RTU Slave & Master, Protocol program, DHCP

Accessories

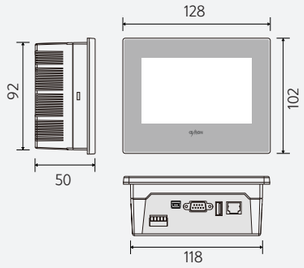
Model	Classification	Note
CM0-TB32M	Terminal block	CCan be used with following modules: CM3-SP32EDO CM3-SP32EOT CM3-SP32EOC
CM0-SCB10E	1.0M cable	
CM0-SCB15E	1.5M cable	
CM0-SCB20E	2.0M cable	
CM0-SCB30E	3.0M cable	

* For more information about specification, please refer to the PLC-S catalog.

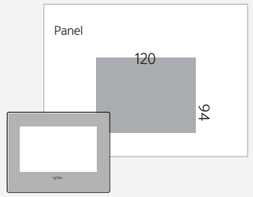
Dimensions of CIMON-XPANEL

Unit : mm

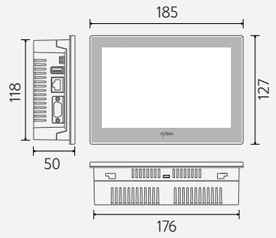
XT04CD



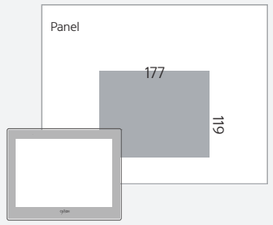
Panel cut



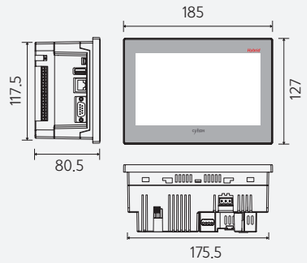
XT07CD



Panel cut



HP07CD



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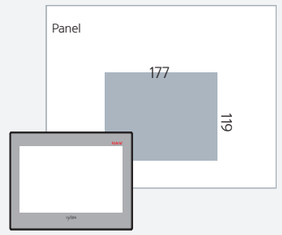

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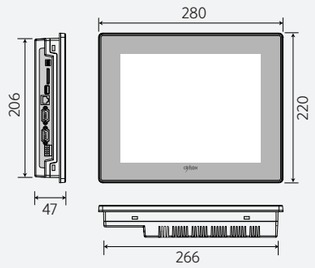

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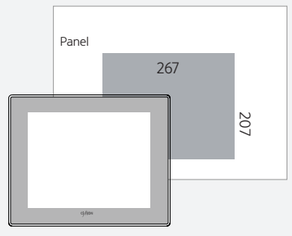

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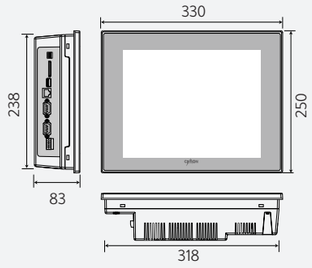

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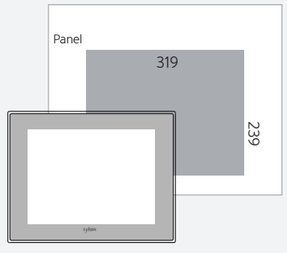

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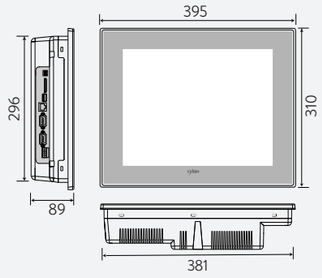

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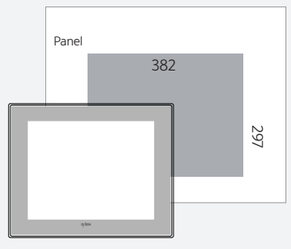

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