

CIMON XPANEL HYBRID

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



VESA Wall Mount

Get a clean and safe installation for articulating arms using the VESA Mount.

PLC-S

PLC-S Embedded

Xpanel Hybrid comes fully capable right out of the box with a built-in PLC-S CPU.



Separated Terminal

Use both XpanelDesigner and CIMON PLC software to easily connect to other devices using the built-in USB mini-B port.



PLC-S Expansion

Add an option module to quickly and easily expand functionality with up to 2 additional PLC-S modules.



High Reliability

Shares reliability standards with other CIMON PLC series (internal test standard).



Speed

- Max 32 PID loop control.
- Equipped with 16 kpps high-speed counter.
- 2-axis servo control embedded.

XPANEL HYBRID SPECIFICATIONS

PRODUCT SPECIFICATIONS

General Specification

Items	Specifications					Standards	
Operating Temperature	0–65°C					-	
Non-Operating Temperature	-20–65°C					-	
Operating Humidity	10–95% RH, No condensation					-	
Non-Operating Humidity	10–95% RH, No condensation					-	
Vibration Resistance	Frequency (pps)	Continuous Vibration		Intermittent Vibration		Count	IEC 61131-2
		Acceleration (m/s ²)	Amplitude (mm)	Acceleration (m/s ²)	Amplitude (mm)		
	5 ≤ f < 9, 9 ≤ f ≤ 150 pps	-	1.75	-	3.5	10 times for each direction X, Y, Z	
	9 ≤ f ≤ 150 pps	4.9 (0.5 G)	-	9.8 (1 G)	-		
Shock Endurance	Maximum shock acceleration: 147 m/s ² (15 G) Duration time: 11 ms 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	±2 kV, For 10 consecutive minutes				CIMON Internal Test Standard	
	Electrostatic Discharge Immunity	Voltage: ±4 kV (Discharge by contact), ±8 kV (Air Discharge)				IEC 61131-2 IEC 61000-4-2	
	Radiated EMF Noise	80–1,000 MHz, 10 V/m				IEC 61131-2 IEC 61000-4-3	
	FAST Transient Burst Noise	Power supply			±2 kV		IEC 61131-2 IEC 61000-4-4
Digital/Analog input/output (AC)			±2 kV				
Digital/Analog input/output (DC)			±1 kV				
Ambient Conditions	Avoid corrosive gas and excessive dust						
Operating	≤ 2000 m					IEC61131-2	
Pollution Level	≤ 2					IEC61131-2	
Cooling System	Air natural cooling						

HMI Part (Xpanel)

Model	sHP07CD-DR	sHP07CD-DT	sHP07CD-DC
LCD Size	7 in		
LCD Type	TFT Color		
Color	65,536 colors		
Resolution	WVGA 800 x 480		
Backlight	LED		
Luminance	600 cd/m ²		
Backlight Life	50,000 Hours		
Touch Panel	Resistive 4 wire		
Memory	128 MB DDR2		
Storage Space	128 MB SLC NAND Flash		
SD Card (HMI)	1 SD Slot		
COM1(HMI)	RS-232C/485/422		
COM2(HMI)	RS-232C (internal)		
COM1(PLC)	RS-232C		
COM2(PLC)	RS485/422		
COM2(PLC)	RS-232C (Internal)		
Ethernet (HMI)	10/100 Base-T		
Ethernet (PLC)	10/100 Base-T		
USB Host	1 port		
Tool Port	1 USB mini-B device		
Audio	1 port		
Voltage	24 VDC		
Power Consumption	11 W	8W	
Operating System	Windows CE 6.0		
Dimension(mm)	185 x 127 x 80.5		

Xpanel Hybrid Product Line-Up

Model	Standard
CM-sHP07CD-DR	Xpanel (XT07) + PLC (CPU, RS-232C, RS-485/422), 24 VDC (0.46 A), TR Input 8 pts, Relay Output 8 pts, USB loader, 2 Ch. Ethernet, SD card slot (HMI)
CM-sHP07CD-DT	Xpanel (XT07) + PLC (CPU, RS-232C, RS-485/422), 24 VDC (0.33 A), TR Input 8 pts, TR Output (SINK) 7 pts, USB loader, 2 Ch. Ethernet, SD card slot (HMI)
CM-sHP07CD-DC	Xpanel (XT07) + PLC (CPU, RS-232C, RS-485/422), 24 VDC (0.33 A), TR Input 8 pts, TR Output (SRC) 7 pts, USB loader, 2 Ch. Ethernet, SD card slot (HMI)

Option

Model	Specification
CM-HP-DM	sHP07 dummy, for protection of Hybrid expansion port, or expansion to PLC-S modules
CM-HP-EAA	Analog module for sHP07 (AI 2 Ch, AO 2 Ch) (0–5 V, 1–5 V, 0–10 V, -10–10 V, 0–20 mA, 4–20 mA)
CM-HP-EDR	Digital module for sHP07 (DI 8 pts, DO 6 pts [relay])

PLC-S Part

Items		Descriptions
Power		DC 12–24 V / 10 W (expanded 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		32-bit
Number of Instruction	Number of Sequence	55
	Number of Application Instruction	389
Execution Processing Speed		200 ns/step for basic instructions
Program Memory		10k steps
Number of I/O Points		384
Operating Modes		RUN, STOP, Remote RUN, Remote STOP
Data Preservation Against Power Failure		Setting data and conservation (latch) in K device
Count of Program Block		128
Blocks of Program (max 127)	Scan	5 types of scan programs including standard scan program, Subroutine, Hot/Cold initialization, Periodic interrupts
	Periodic Interrupts	Up to 15 (min. 10 ms)
	Special Configuration	4 types of special programs including PID program, High-speed counter, Positioning control, Input module filtering
	Comm.	4 types of programs including user protocol program, Modbus RTU master, High Speed PLC Link
	Misc.	SFC Program
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 pts (X0000–X063F)
	Y	1024 pts (Y0000–Y063F)
	M	8192 pts (M0000–M511F)
	L	4096 pts (L0000–L255F)
	K	4096 pts (K0000–K255F)
	F	2048 pts (F0000–F127F)
	T	512 pts (T0000–T0511)
	C	512 pts (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 pts (index)	
High-Speed Counter		Maximum count speed 16 kpps, (maximum 4 kpps when using 2 phase 2 ch)