VP-6208-CE7 VP-5208-CE7 VP-4208-CE7 VP-3208-CE7 VP-2208-CE7

Win-GRAF based ViewPAC

Features

- 15", 12.1", 10.4", 8.4", 7" TFT LCD
- Cortex-A8, 720 MHz/1 GHz CPU
- CE7 (Windows Embedded Compact 7)
- Embedded Win-GRAF SoftLogic (IEC 61131-3)
- Hard Real-Time Capability
- PoE (Power over Ethernet)
- NEMA 4/IP65 Compliant Front Panel
- Modbus RTU/TCP (Master, Slave)
- Support eLogger HMI
- Audio with Earphone-Out
- Operating Temperature: -10 ° C ~ +60 ° C

Introduction

The Win-GRAF ViewPAC Series (VP-2208-CE7/VP-3208-CE7/VP-4208-CE7/VP-5208-CE7/VP-6208-CE7) are WinCE7 based Win-GRAF SoftLogic ViewPAC that combine computing and operator interface into a single unit, and provide the perfect solution for integrating HMI, data acquisition and control in an individual PAC. It is equipped with a Cortex-A8 (720 MHz/1 GHz) CPU, TFT LCD and a variety of connectives including Gigabit Ethernet, USB port, RS-232 and RS-485 interface. I/O expansion is available to use our Ethernet I/O modules and RS-485 I/O modules. Designed for panel mount installation, the front panel is NEMA 4/IP65 rated and can withstand sprayed water, humidity and extreme dust. Designed to operate over a wide -10° C ~ 60° C ambient temperature range, the fanless design offers the ultimate in reliability with no moving parts.

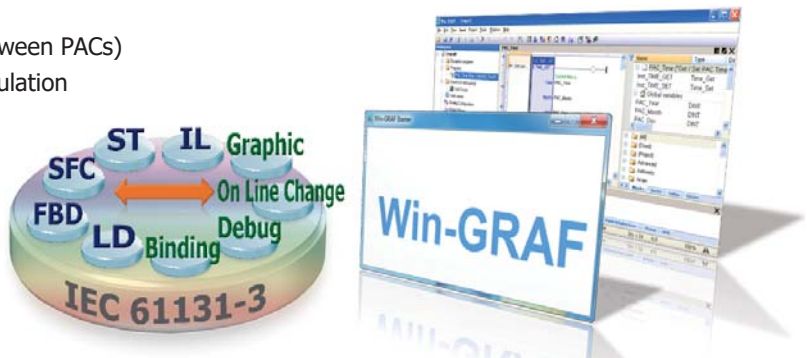
The Win-GRAF ViewPAC are capable of running Win-GRAF (IEC 61131-3 Standard) software to develop logic control, and also provide a free HMI software "eLogger" to edit the HMI by graphical drag and drop the HMI objects, or support M.S. VS 2008 software (VB .NET, C#) to develop HMI and data management applications, and all can exchange data with Win-GRAF applications. So the application's design is more convenient and practical.

Win-GRAF

Win-GRAF is a powerful, PLC-like, softlogic development software. It is installed on PC with windows 7/8 (or later version). It supports the international PLC language standard - IEC 61131-3 - Ladder Diagram (LD), Function Block Diagram (FBD), Sequential Function Chart (SFC), Structured Text (ST), Instruction Set (IL), suitable to develop applications for the full range of Win-GRAF PACs from ICP DAS.

The features of the Win-GRAF:

- IEC 61131-3 Standard Open PLC Syntax (LD, FBD, SFC, ST, IL)
- Using ST Syntax in the FBD or LD Program
- Event Triggered Data Binding (Exchange Data between PACs)
- Online Debugging/Control/Monitoring, Offline Simulation
- On Line Change
- Various Protocols:
  - Modbus TCP/UDP, Modbus RTU/ASCII Master
  - Modbus TCP, RTU Slave
  - DCON ...
- Plenty of Functions, Function Blocks, I/O Boards
- Redundancy (For XP-8xx8-CE6 PAC only)



PAC Specifications

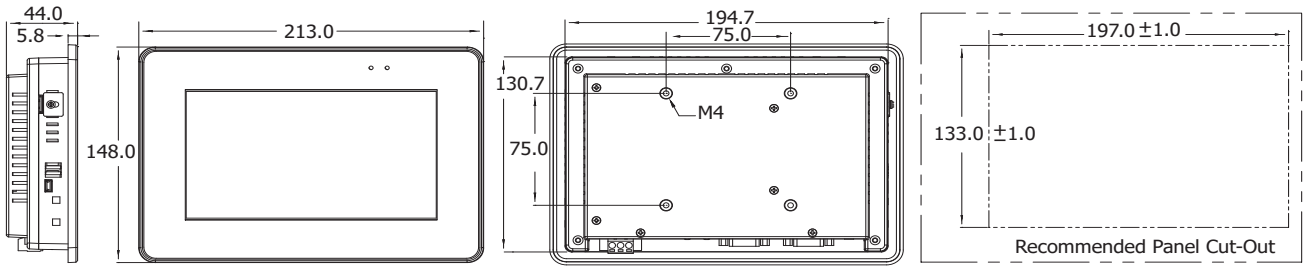
Models	VP-2208-CE7	VP-3208-CE7	VP-4208-CE7	VP-5208-CE7	VP-6208-CE7
LCD					
Diagonal Size	7" (16:9)	8.4" (4:3)	10.4" (4:3)	12.1" (4:3)	15" (4:3)
Resolution	800 x 480	800 x 600			1024 x 768
Brightness (cd/m2)	400				
Contrast Ratio	500 : 1				
LED Backlight Life (hrs)	20,000	50,000			
Touch Panel	4-wire, resistive type; light transmission: 80 %	5-wire, resistive type; light transmission: 80 %			
LED Indicator	2 (Run, PWR)				
System Software					
OS	Windows CE 7.0				
Framework Support	.NET Compact Framework 3.5				
Embedded Service	FTP server, Web server (supports VB script, JAVA script), SQL Compact Edition 3.5				
SDK Provided	Dll for Visual Studio.Net				
Multilanguage Support	English, German, French, Spanish, Portuguese, Russian, Italian, Korean, Simplified Chinese, Traditional Chinese				
Development Software					
Win-GRAF Software – Win-GRAF	IEC 61131-3 standard				
Win-GRAF Software – Languages	LD, ST, FBD, SFC, IL				
Win-GRAF Software – Max. Code Size	2 MB				
Win-GRAF Software – Scan Time	3 ~ 15 ms for normal program; 15 ~ 50 ms (or more) for complex or large program				
Non-Win-GRAF	Options: VS.NET 2008 (VB.NET, C#.NET, C)				
CPU Module					
CPU	Cortex-A8, 720 MHz	Cortex-A8, 1 GHz			
DRAM	512 MB (DDR3)				
MRAM	128 MB				
Flash (SSD)	256 MB				
EEPROM	16 KB				
Expansion Flash Memory	microSD socket with a 4 GB microSD card (support up to 32 GB)	SD socket with a 4 GB microSD card and a microSD adapter (support up to 32 GB)			
RTC (Real Time Clock)	Provides seconds, minutes, hours, date, day of week, month, year				
64-bit Hardware Serial Number	Yes, for Software Copy Protection				
Dual Watchdog Timers	0.8 second				
Rotary Switch	0 ~ 9				
Communication Interface					
Ethernet	1 x RJ-45, 10/100/1000 Base-T (Auto-negotiating, Auto MDI/MDI-X, LED indicators)				
USB 2.0 (host)	2				
COM 1	RS-232/RS-485; 2500 VDC isolated	-	RS-232/RS-485 (DB9 connector); 2500 VDC isolated		
COM 2	RS-232 (TxD, RxD, CTS, RTS) /RS-485 (Data+, Data-) (9-wire DB9 connector); 2500 VDC isolated				
COM 3	-	RS-485 (Data+, Data-, GND); 2500 VDC isolated			
Audio	Earphone-out				
Mechanical					
Dimensions (WxHxD) Unit: mm	213 x 148 x 44	249 x 207 x 64	291 x 229 x 54	324 x 255 x 64	381 x 305 x 63
Panel Cut-Out (W x H)	197 x 133, ± 1	235 x 193, ± 1	277 x 215, ± 1	310 x 241, ± 1	362 x 286, ± 1
Installation	Panel Mounting, VESA (75 x 75) Mounting				
Ingress Protection	Front panel: NEMA 4/IP65				
Environmental					
Temperature	Operating Temperature: -10 ° C ~ +60 ° C / Storage Temperature: -20 ° C ~ +70 ° C				
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)				
Power					
Input Range/Power from PoE	+12 VDC ~ +48 VDC / IEEE 802.3af				
Isolation	-	1 kV			
Consumption	6 W	7.5 W	13 W	14 W	16 W

Win-GRAF Specifications

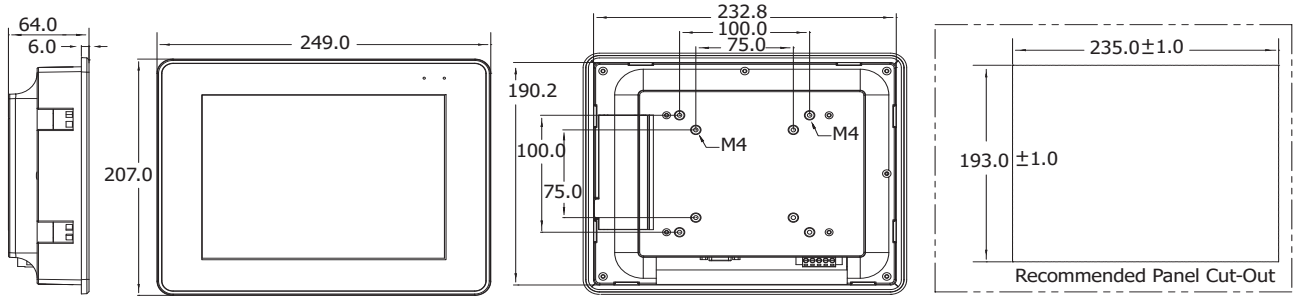
Models	VP-2208-CE7	VP-3208-CE7	VP-4208-CE7, VP-5208-CE7, VP-6208-CE7
Protocols (Note that certain protocols require optional devices)			
NET ID	1~255, for Modbus TCP/RTU Slave, user-assigned		
Modbus TCP Master	A max. of 200 IP links to access/control the devices supporting Standard Modbus TCP Slave protocol.		
Modbus RTU/ASCII Master	Max. 2 RS-485 ports: COM1 ~ 2	Max. 2 RS-485 ports: COM2 ~ 3	Max. 3 RS-485 ports: COM1 ~ 3
	Using COM ports to connect other Modbus Slave devices (Like M-7000). Recommend connecting no more than 32 devices in each port for better scan rate.		
Modbus RTU Slave	Max. 2 RS-485 ports: COM1 ~ 2	Max. 2 RS-485 ports: COM2 ~ 3	Max. 3 RS-485 ports: COM1 ~ 3
	Using COM ports for connecting SCADA/HMI.		
Modbus TCP Slave	One Ethernet ports (LAN1) support up to 64 connections. If the PAC uses 1 connection to connect each PC/HMI, it can connect up to 64 PCs/HMIs; If the PAC uses 2 connections to connect each PC/HMI, it can connect up to 32 PCs/HMIs; If one of the Ethernet port malfunctions, the other one can still be used to connect the PC/HMI.		
User-defined Protocol	COM1 ~ 2	COM2 ~ 3	COM1 ~ 3
	Custom protocols can be applied at COM by using Serial communication functions or function blocks.		
DCON Remote I/O	Max. 2 RS-485 ports: COM1 ~ 2	Max. 2 RS-485 ports: COM2 ~ 3	Max. 3 RS-485 ports: COM1 ~ 3
	Each port can connect max. 50 nos I-7000 series modules or 50 nos I-87xxxW I/O modules in expansion units (I-87K4, I-87K8, I-87K9, RU-87P8, RU-87P4). Recommend connecting no more than 32 modules in each port for better scan rate.		
App Protection	Using the unique 64-bit (8 bytes) PAC serial number to generate a protection password by your own algorithm to protect your Win-GRAF application. Then, if someone intend to copy your application in the PAC to another new PAC with the same PAC model, this application will not work properly in that new PAC.		
Data Binding	Exchange data between ICP DAS Win-GRAF PAC via Ethernet port (LAN1). The data transmission is event triggered. It is much efficient than polling way.		
On Line Change	For application field that not allowed to stop the Win-GRAF program and wish to run a new program modified a little from the original program.		
Modbus RTU I/O	When software enables Modbus RTU Master function, the PAC can connect ICP DAS M-7000 and tM series and LC series I/O modules which support Modbus RTU protocol.		
Modbus TCP I/O	When software enable Modbus TCP Master function, the PAC can connect ET-7000, I-8KE4/8-MTCP and tPET/tET series I/O modules of ICP DAS which support Modbus TCP protocol.		
Schedule Control	Supports the "Schedule-Control Utility" (free) to implement schedule control. Each PAC can control max. 10 Targets (devices) with different schedule settings in each day / holiday / special day / season / year.		
Retain Variables	Built-in the fast retain memory that can retain up to 12,000 Win-GRAF variables.		
File Access & Data Log	The Win-GRAF supports file operation functions to read/write files in the PAC's micro_SD or flash memory to do data log or file access.		
eLogger HMI	Support to run HMI program (developed by the eLogger) together with the Win-GRAF logic-control program in the same PAC.		
*** Note: VP-2208-CE7 has no COM3. VP-3208-CE7 has no COM1.**			

Dimensions

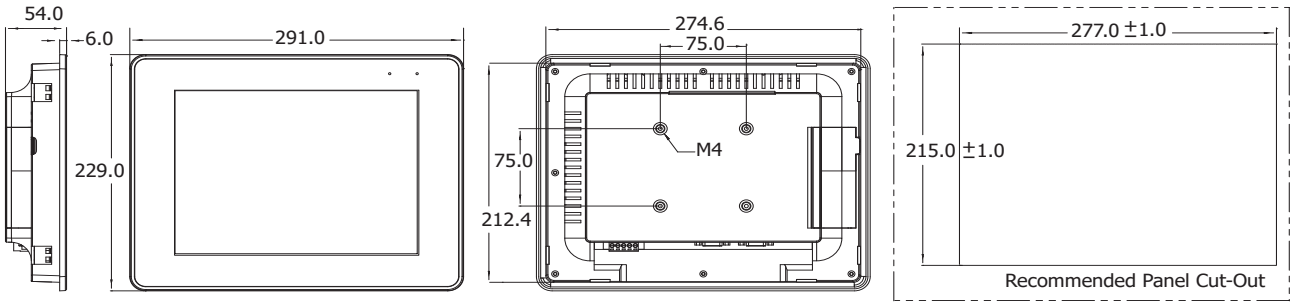
VP-2208-CE7



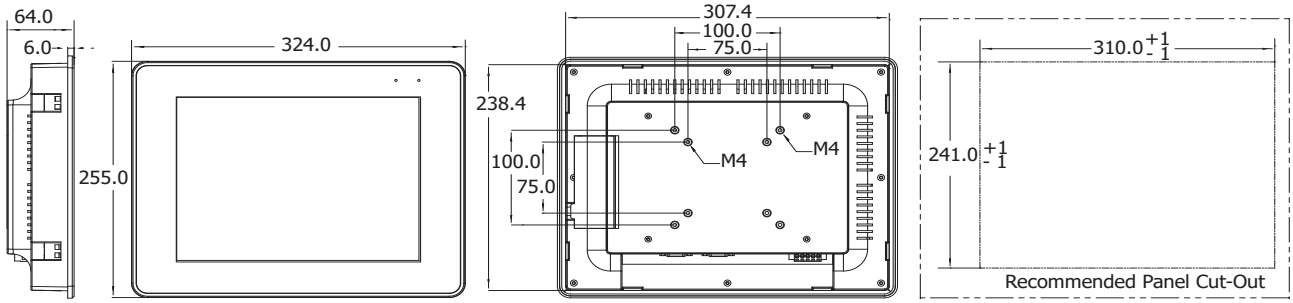
VP-3208-CE7



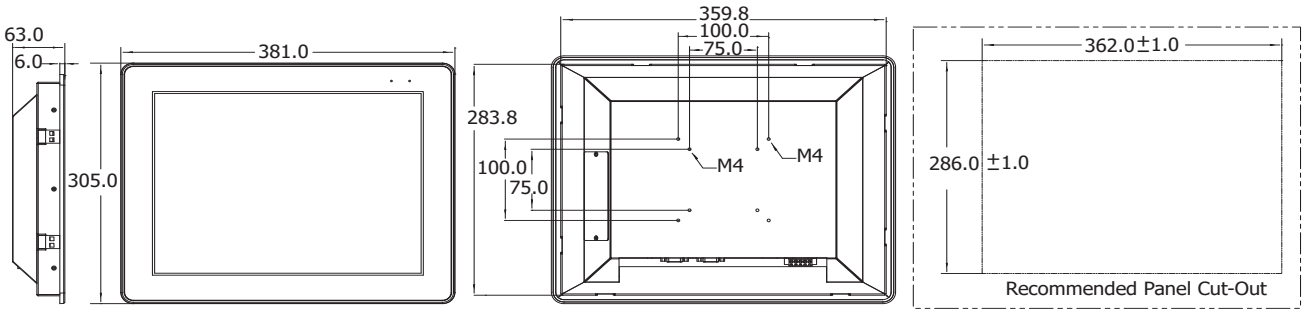
VP-4208-CE7



VP-5208-CE7

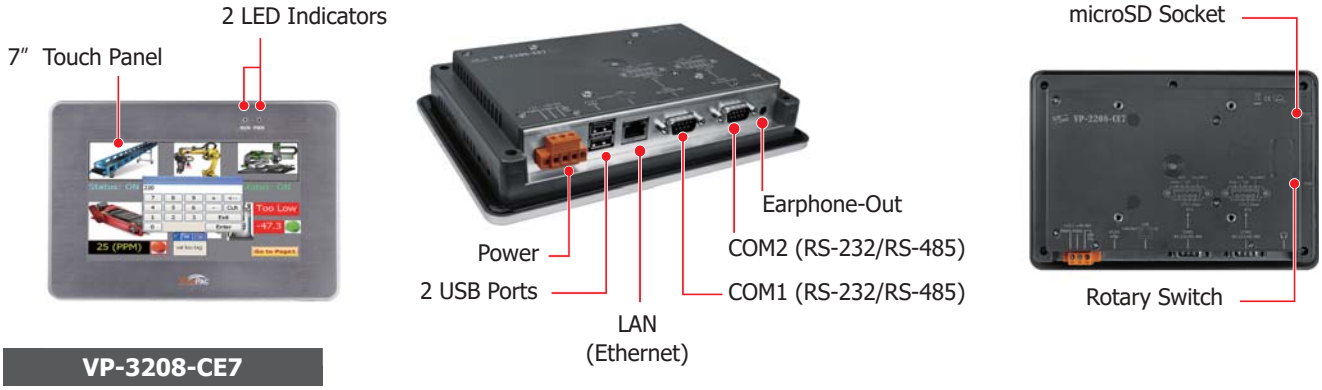


VP-6208-CE7

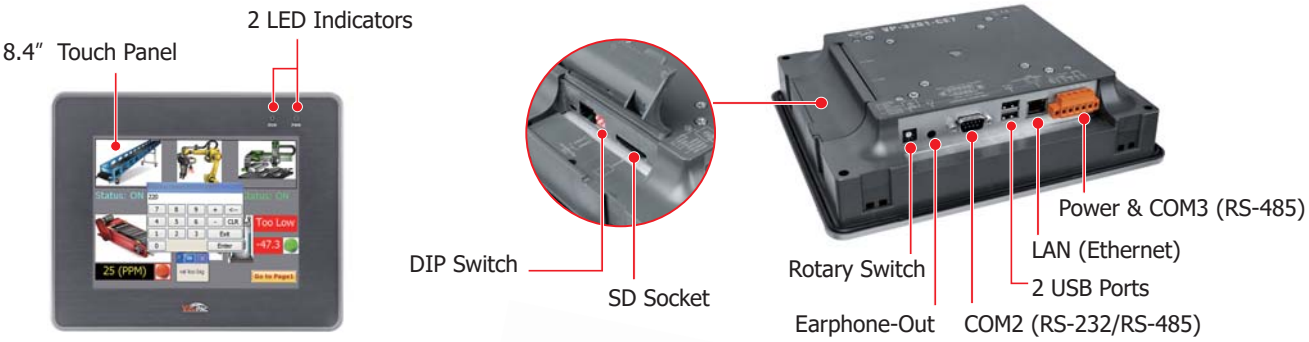


Appearance

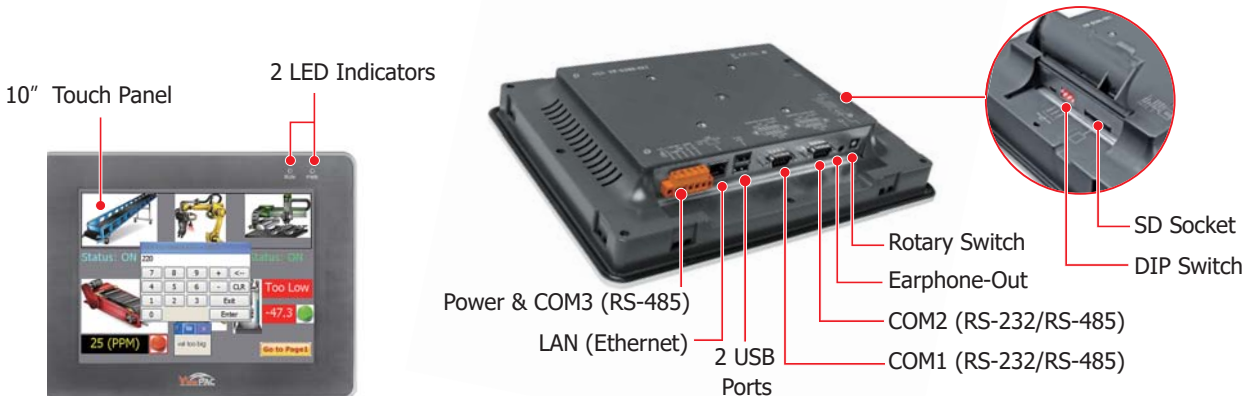
VP-2208-CE7



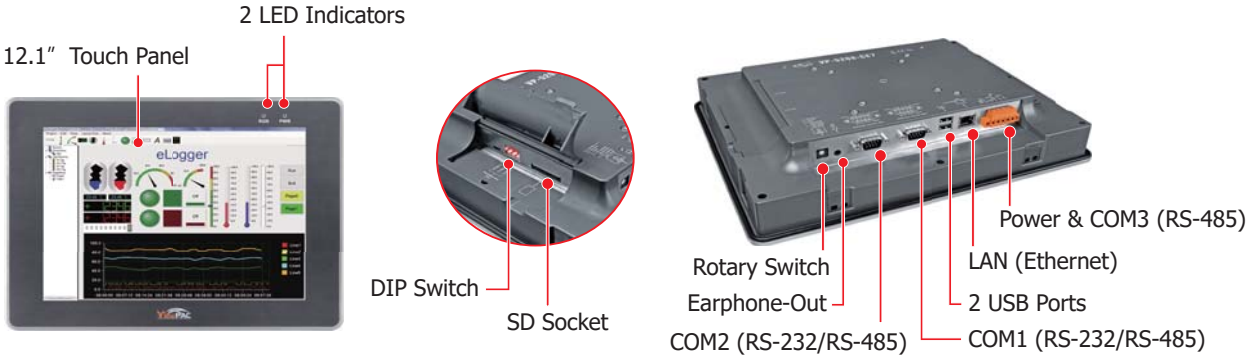
VP-3208-CE7



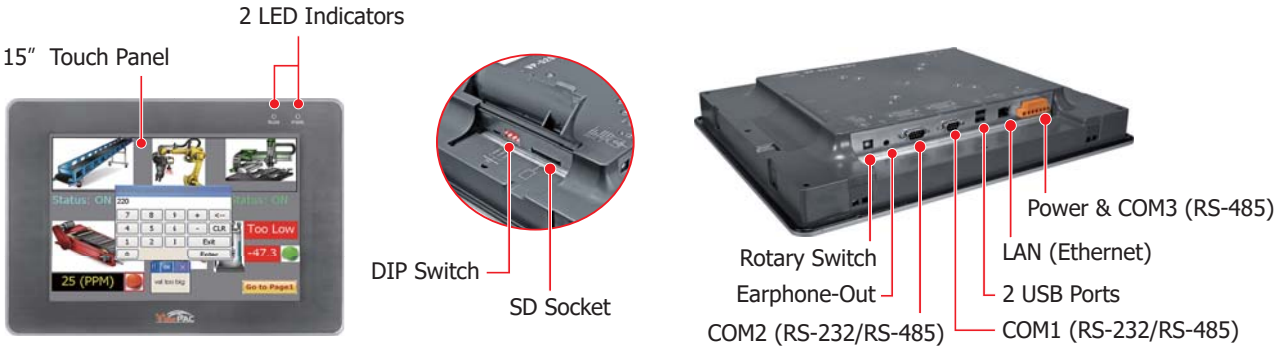
VP-4208-CE7



VP-5208-CE7



VP-6208-CE7

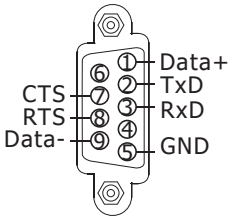


Pin Assignment

COM1 & COM2: RS-232/RS-485

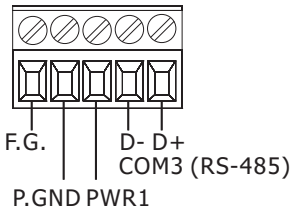
COM1:
VP-2208-CE7
VP-4208-CE7
VP-5208-CE7
VP-6208-CE7

COM2:
VP-2208-CE7
VP-3208-CE7
VP-4208-CE7
VP-5208-CE7
VP-6208-CE7



COM3: RS-485 (D+, D-)

COM3:
VP-3208-CE7
VP-4208-CE7
VP-5208-CE7
VP-6208-CE7



Ordering Information

VP-2208-CE7 CR	7" Win-GRAF based ViewPAC with Cortex-A8, 720 MHz CPU and CE7 OS (RoHS)
VP-3208-CE7 CR	8.4" Win-GRAF based ViewPAC with Cortex-A8, 1 GHz CPU and CE7 OS (RoHS)
VP-4208-CE7 CR	10.4" Win-GRAF based ViewPAC with Cortex-A8, 1 GHz CPU and CE7 OS (RoHS)
VP-5208-CE7 CR	12.1" Win-GRAF based ViewPAC with Cortex-A8, 1 GHz CPU and CE7 OS (RoHS)
VP-6208-CE7 CR	15" Win-GRAF based ViewPAC with Cortex-A8, 1 GHz CPU and CE7 OS (RoHS)

Related Products

Win-GRAF Development Software	
Win-GRAF Workbench	Win-GRAF Workbench Software (Large I/O Tags) with one USB Dongle