

# ViewPAC-2xW7 Series WinCE 5.0 ISaGRAF ViewPAC



VP-25W7

VP-23W7

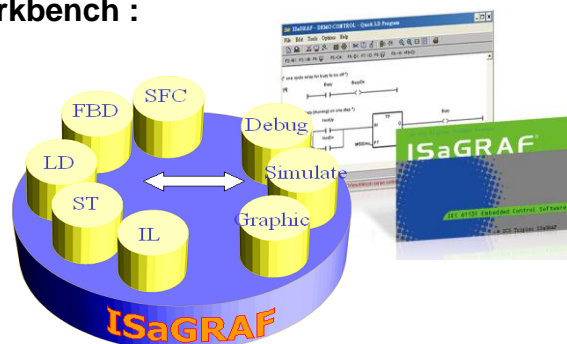


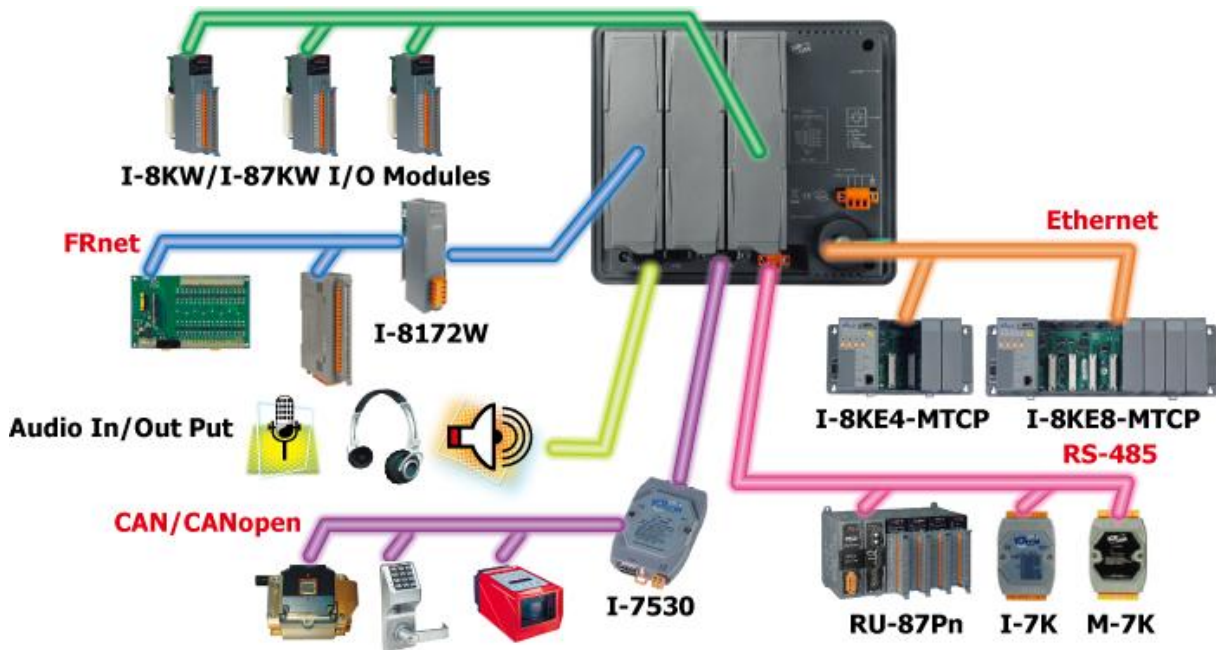
- ISaGRAF Ver.3 SoftLogic Inside
- Support IEC 61131-3 Standard
- Windows CE 5.0 Inside  
.NET Compact Framework 2.0
- Support Microsoft  
Visual Basic.NET 2003/2005/2008,  
Visual C#.NET 2003/2005/2008,  
EVC++ 4.0
- Powerful PXA270 CPU:  
32-bit & 520 MHz or Compatible
- SRAM: 128 MB, FLASH: 96 MB
- Dual Battery Backup SRAM: 512 KB
- I/O Slots: 3 Slots  
Hot-Swap I-87K High Profile Card
- RS-232/485 Serial Comm. Ports:  
COM2: RS-485  
COM3: RS-232
- One Ethernet Port
- VP-25W7: One 5.7" LCD  
with Touch Panel  
VP-23W7: One 3.5" LCD  
without Touch Panel

**ViewPAC** combines PAC(Programmable Automation Controller), color graphic display and keypad in one unit (**PAC + HMI**). It equips a PXA270 CPU (520 MHz) running Windows CE .NET 5.0 operating system, variant connectivity (USB, Ethernet, RS-232/485), 3 I/O slots, 3.5"/5.7" TFT LCD and a rubber keypad. Its operating system, Windows CE .NET 5.0, has many advantages, includes hard real-time capability, small core size, fast boot speed, interrupt handling at a deeper level and achievable deterministic control. Running Windows CE .NET 5.0 in the ViewPAC gives it the ability to run ISaGRAF and PC-based control software such as Visual Basic .NET, Visual C#, Embedded Visual C++, SCADA software... etc.

## The ISaGRAF PAC supports ISaGRAF Ver.3 Workbench :

- IEC 61131-3 Standard Open PLC Programming Languages + Flow Chart(FC) :
  1. LD
  2. FBD
  3. SFC
  4. ST
  5. IL
  6. FC
- Auto-Scan I/O
- Simulate program even without controller
- Debug on-line
- Control/Monitor on-line
- Simple graphic HMI





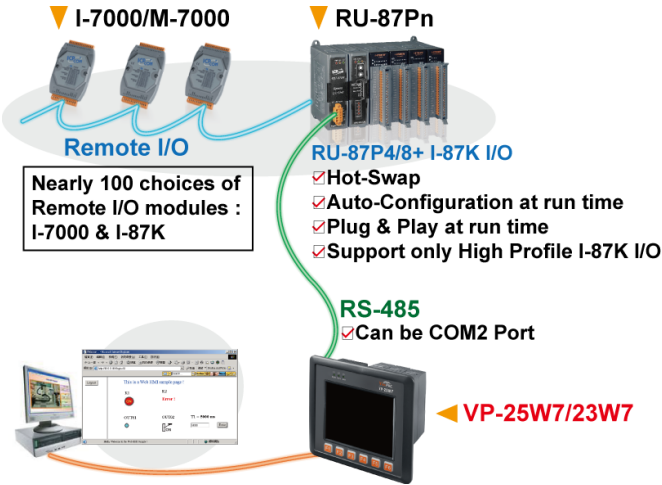
## Hardware Features:

- ☑ **Powerful CPU Module**
  - PXA270 CPU: 32-bit & 520 MHz or compatible
- ☑ **IP65 Compliant Front Panel**
- ☑ **3.5" / 5.7" TFT LCD**
  - (5.7" LCD is with Touch Panel)
- ☑ **Rubber Keypad with 24/6 Keys**
- ☑ **Audio with Microphone-In and Earphone-out**
- ☑ **3 Slots for High Profile I/O Modules**
- ☑ **64-bit Hardware Serial Number**
  - Unique
  - Protect software
  - Protect applications
- ☑ **Build-in Flash Disk (31 MB)**
- ☑ **Dual Battery-Backup SRAM (512 KB)**
  - Retain the data for 5 years while power off
- ☑ **I/O Module Hot-Swap Ability**
  - Plug & play for I-87K High Profile I/O Card
- ☑ **Rich I/O Expansion Ability**
  - Ethernet
  - RS-232
  - RS-485
  - RS-422
  - FRnet
  - CAN
- ☑ **Built-in USB Port**
- ☑ **Ventilated Housing Design Allows Operation Between -20°C ~ +70°C**

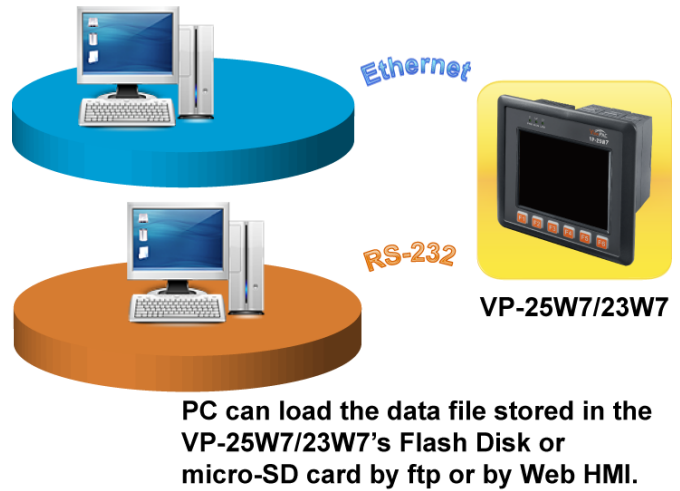
## Software Features:

- ☑ **Development Software: ISaGRAF Ver.3**
  - ISaGRAF Version 3
  - Running on Windows 95/98/NT/2000/XP
  - Single design environment
  - Provide **6** PLC syntaxes
  - (5 IEC 61131-3 Standard + 1 Flow Chart)
  - Max. **1 MB** ISaGRAF code size
  - Support off-line simulation
  - On-line debugging, monitoring and control
  - Easy integrating to HMI/SCADA/MMI
- ☑ **Windows CE.NET 5.0**
- ☑ **Support Modbus Master**
  - RTU, ASCII, RS-232/485/422 (Max. **10** ports)
- ☑ **Support Modbus RTU/TCP Slave**
  - Modbus RTU (RS-232/485/422) Slave (Max. **5** ports)
  - Modbus TCP/IP Slave (Max. **32** connections)
- ☑ **Support Data Exchange**
  - Ebus: Through Ethernet
  - PAC to PAC
- ☑ **Support CAN/CANopen**
  - Via I-7530 or I-8120W to connect CAN/CANopen devices
- ☑ **Support FRnet I/O (Via I-8172W)**
- ☑ **Support Motion Control**
- ☑ **Support Send Email with One File**
- ☑ **Support SMS: Short Message Service**
  - GSM modem : GTM-201-RS232
- ☑ **Support Wireless Communication**
  - ZigBee Wireless : ZB-2550P/2551P
- ☑ **Support Data-Recorder & Data-Logger**
- ☑ **Support Auto-report Acquisition/Control Data**
- ☑ **Support VW Solutions**

## Remote I/O Application

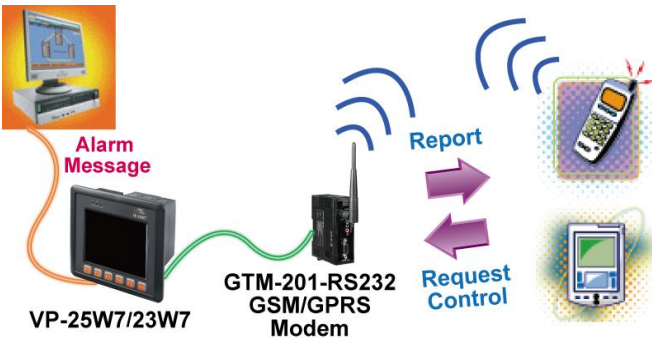


## Data-Recorder & Data-Logger



## SMS: Short Message Service

- Short message can be sent in local language format (like Chinese, English... others)
- More at [www.icpdas.com](http://www.icpdas.com) > FAQ > Software > [ISaGRAF Ver.3 \(English\) - 111](#)



## Motion Control

- One **I-8091W** can control 2 axes: X-Y plane, or 2 axes independent
- Two **I-8091W** can control 4 axes: X-Y plane + 2 axes independent, or 4 axes independent
- Encoder Modules **I-8084W**: 4-axis, without Z-index  
**I-8090W**: 3-axis



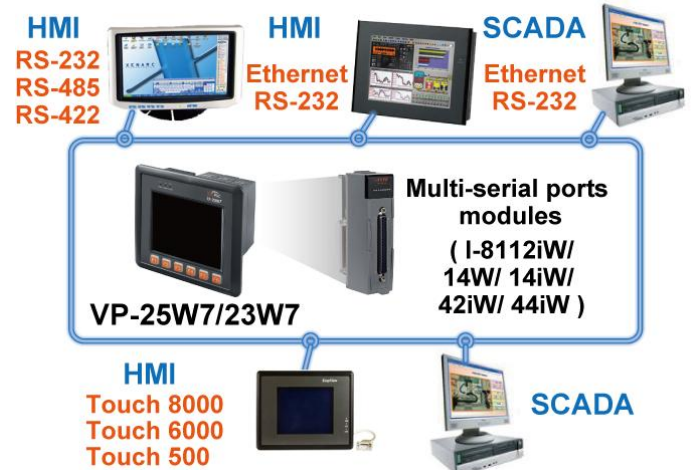
## Modbus Master : RTU, ASCII, RS-232/485/422

- Support up to **10** ports: COM2, COM3 & COM5~COM14 (if I-8112iW/ 14W/ 14iW/ 42iW/ 44iW in Slot 0~2)
- Can link to Modbus PLC or M-7000 I/O or Modbus devices (Power meter, temperature controller, inverter etc.)



## Modbus Slave : RTU / TCP

- Modbus RTU (RS-232/485/422)**: max. **5** ports
- Modbus TCP/IP**: max. **32** connections

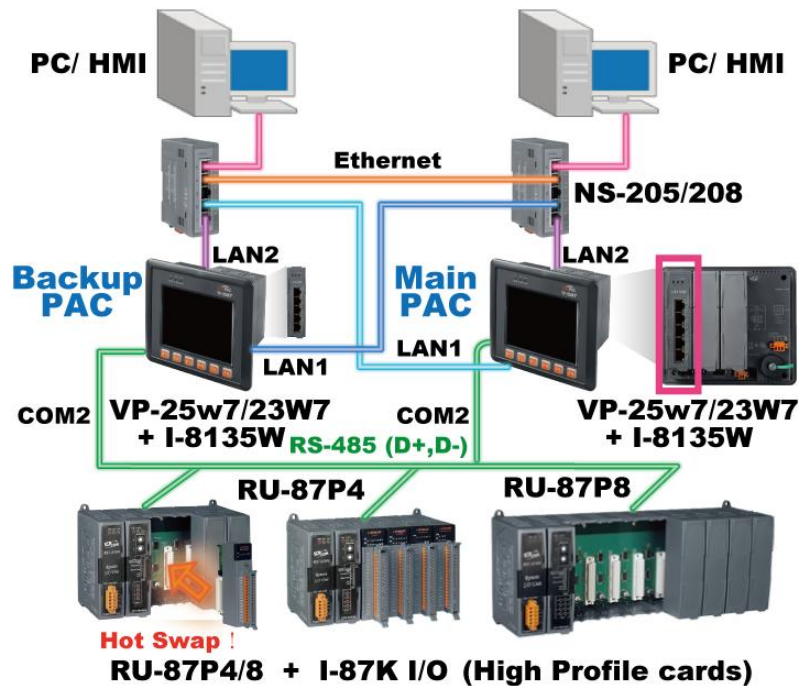




## New Hot-Swap and Redundant System

- Please plug one I-8135W and enable the 2<sup>nd</sup> Ethernet port of VP-25W7/23W7.
- If one Ethernet cable of VP-25W7/23W7 is broken or damaged, the other one will still work.
- If one controller is dead, the other one will take over the control of the RS-485 I/O.
- PC/HMI can connect to this redundant system by one or two active IP.
- More at [www.icpdas.com](http://www.icpdas.com) > [FAQ](#) > [Software](#) > [ISaGRAF Ver.3 \(English\) - 093](#)

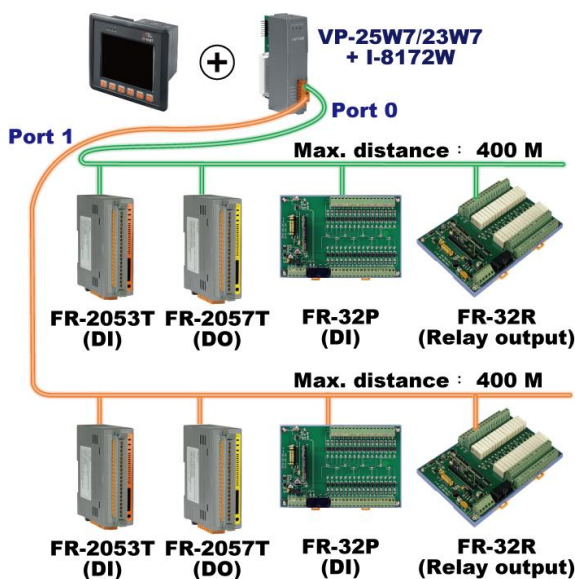
### New VP-2xW7 Hot-Swap Redundant System



## Fast FRnet Remote I/O

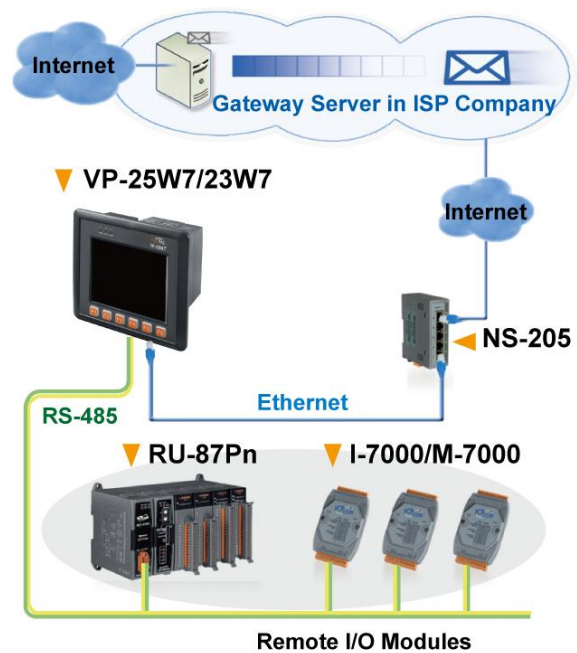
**Advantage of FRnet I/O:** Fast I/O scan time is about 3 ms/scan. (It depends on your program's PLC scan time. Ex: If the ISaGRAF program's PLC scan time is about 9 ms, then the scan time for all will be 9 ms, not 3 ms)

**Note:** FRnet I/O do not support AI & AO yet.



More at [www.icpdas.com](http://www.icpdas.com) > [FAQ](#) > [Software](#) > [ISaGRAF Ver.3 \(English\) - 082](#)

## Send Email with One Attached File



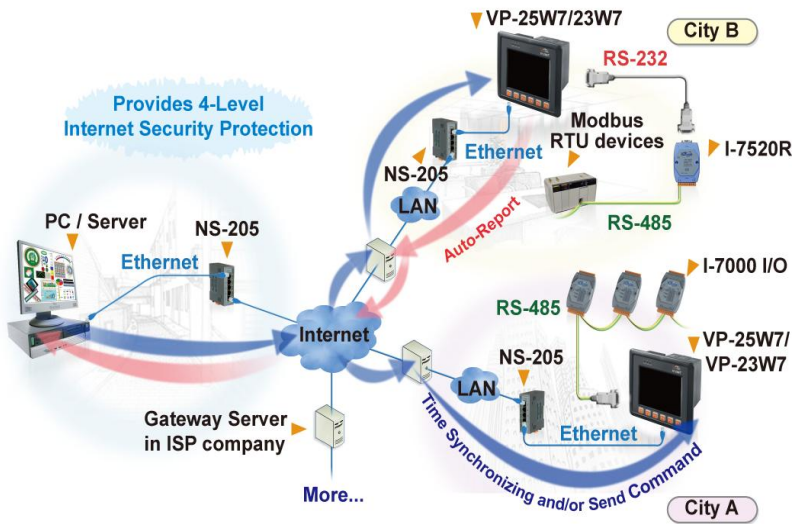
More at [www.icpdas.com](http://www.icpdas.com) > [FAQ](#) > [Software](#) > [ISaGRAF Ver.3 \(English\) - 067](#)

## ● Auto-report Acquisition & Control Data

VP-25W7/23W7 can use UDP IP Client to auto-report acquisition data & control data to local or remote internet PC/Server.

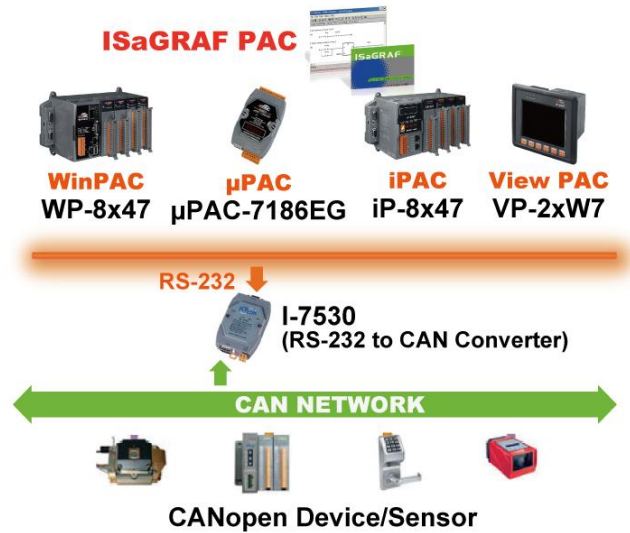
Advantage : Every PAC in the different location doesn't need a fixed Internet IP

### Stable and Cost-effective Data Acquisition Auto-Report System

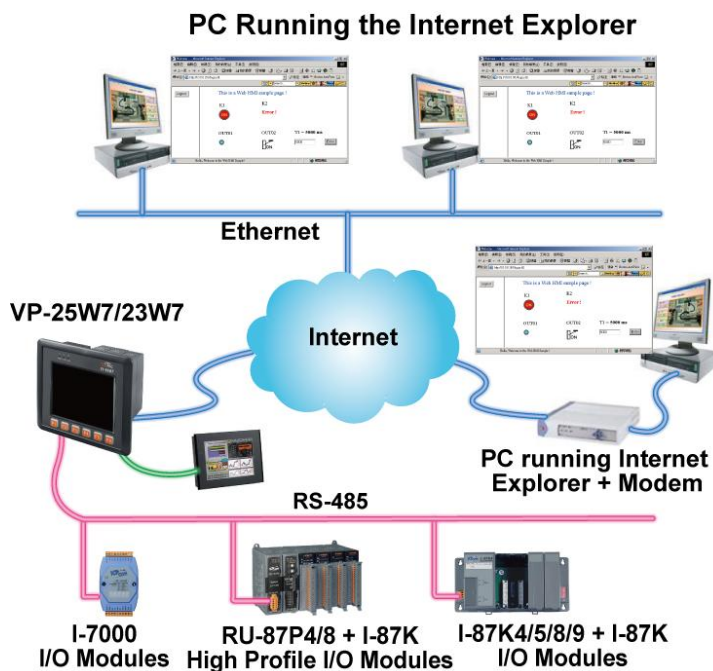


## ● Integrate with CAN/CANopen Devices & Sensors

- VP-25W7/23W7 supports max. 10 I-7530 (RS-232 to CAN Converter)
- Please refer to [www.icpdas.com](http://www.icpdas.com) > FAQ > Software > ISaGRAF Ver.3 (English) > 086

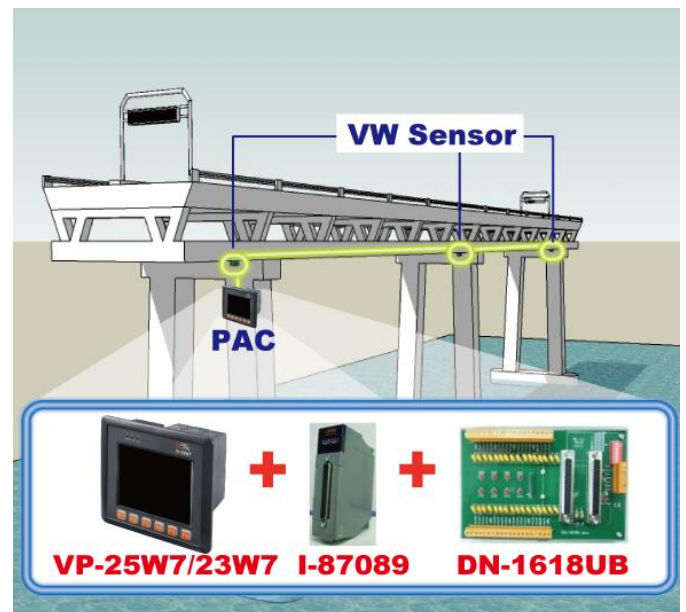


## ● Multiple Web HMI – Monitor & Control Everywhere!



## ● Stress Monitoring Application of Constructions

More at [www.icpdas.com](http://www.icpdas.com) > FAQ > Software > ISaGRAF Ver.3 (English) - 091



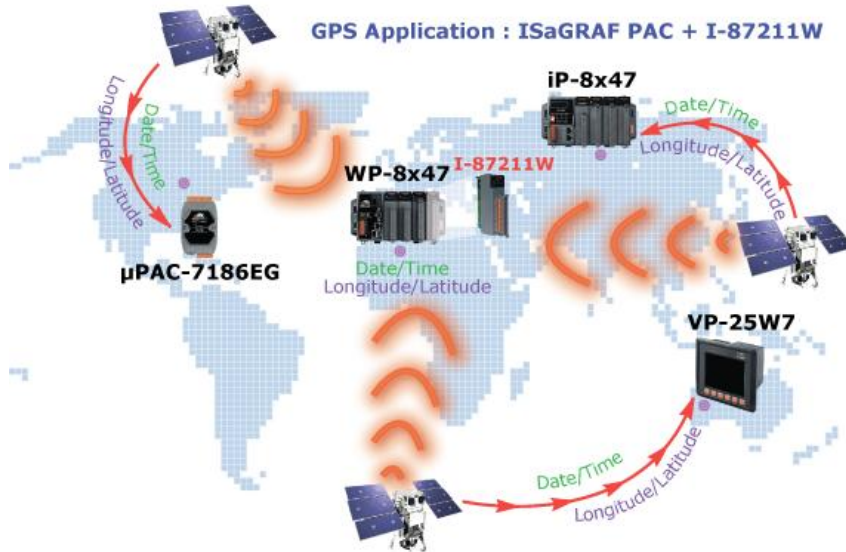


**Communicate With Other TCP/IP Server or UDP Client/Server Devices**



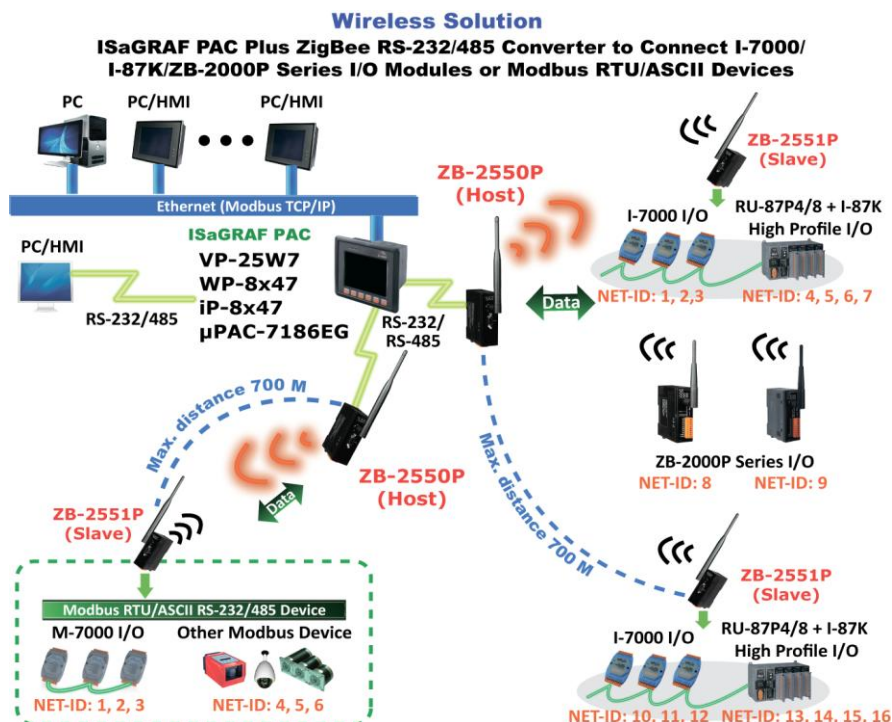
**GPS applications: ISaGRAF PAC plus I-87211W**

- VP-25W7/23W7 can support one I-87211W in its slot 0 to 2 or as RS-485 remote I/O.
- For doing auto-time-synchronization and getting local Longitude and Latitude
- Please refer to [www.icpdas.com](http://www.icpdas.com) > FAQ > Software > ISaGRAF Ver.3 (English) - 107 for more information



**ZigBee Wireless Solution**

- ISaGRAF ViewPAC plus ZB-2550P/ZB-2551P converters (ZigBee to RS-232/485) can apply wireless communication, reduce the wiring cost, and achieve the mission of remote I/O control and data acquisition.
- Please refer to [www.icpdas.com](http://www.icpdas.com) > FAQ > Software > ISaGRAF Ver.3 (English) - 110 for more information





## Specifications of VP-25W7 / VP-23W7

■ Models	VP-23W7	VP-25W7
<b>■ System</b>		
OS	Windows CE 5.0	
.Net Compact Framework	2.0	
Embedded Service	FTP Server, Web Server	
<b>■ Development Software</b>		
ISaGRAF Software	<b>ISaGRAF Version 3</b> : IEC 61131-3 standard. Languages: LD, ST, FBD, SFC, IL & FC	
Max. Code Size	Accepts max. 1 MB ISaGRAF code size (Appli.x8m must < 1 MB)	
Non-ISaGRAF	Options: Microsoft EVC++ 4.0 or VS.NET 2003/2005/2008 (VB.NET2003/2005/2008, C#.NET 2003/2005/2008)	
<b>■ Web Service</b>		
Web HMI	Support Web HMI function, PC running Internet Explorer can access to the VP-25W7 / VP-23W7 via local Ethernet, Internet or dial Modem to monitor and control.	
Security	Web HMI supports three level username and password protection	
<b>■ Power Supply</b>		
Input Range	+10 ~ +30 V <sub>DC</sub> (unregulated),	
Isolation	1 kV	
Capacity	2.5 A, 5 V supply to I/O expansion slots	
Consumption	7.2W (0.3A @ 24V <sub>DC</sub> )	
<b>■ General Environment</b>		
Temperature	Operating Temperature: -20 ~ +70°C Storage Temperature: -30 ~ +80°C	
Humidity	5 ~ 95% RH (non-condensing)	
<b>■ System</b>		
CPU	CPU: PXA 270, 32-bit and 520 MHz, or compatible	
Dual Watchdog Timer	Yes	
RTC (Real Time Clock)	Gives hour, minute, sec, day of week, day of month, month & year, valid up from 1980 ~ 2079	
EEPROM	16 KB (Data retention: 40 years ; 1,000,000 erase/write cycles)	
SRAM	128 MB	
Dual Battery Backup SRAM	512 KB (for 5 years data retention while power off)	
FLASH	96 MB (64 MB for OS image, 31 MB for built-in Flash disk, 1 MB for registry)	
Expansion FLASH Memory	microSD socket with one 1 GB microSD card (support up to 16 GB microSDHC card )	
Serial Number	Yes, 64-bit hardware unique serial number	
NET ID	1 ~ 255, set by software	
Rotary Switch	Yes (0~9)	
I/O Slots	VP-25W7 / VP-23W7: 3 slots (slot 0 ~ slot 2) Accept only <b>High Profile</b> I-8K and <b>High Profile</b> I-87K I/O modules.	
Hot Swap (will be available)	For High Profile <b>I-87K</b> I/O modules in slot 0 to slot 2 only	
<b>■ Communication Ports</b>		
First Ethernet	RJ-45 x 1, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators) Please use NS-205/NS-208 Industrial Ethernet Switch.	
Second Ethernet	The default VP-25W7 / VP-23W7 has only one Ethernet port. They can add one optional I-8135W card in its slot 0 ~ 2 to expands the second Ethernet port.	
USB Port	1 USB 1.1 Host ports for USB mouse, keyboard or USB drive	
COM0	Internal communication with the I-87K High Profile modules in slots	
COM2	RS-485 (D2+, D2-; self-tuner ASIC inside); Speed: 115200 bps max. , 2500 V <sub>DC</sub> isolated	
COM3	RS-232 (Rx/D, Tx/D, CTS, RTS, DSR, DTR, CD, RI and GND); Non-isolation; Speed: 115200 bps max.	

## ■ MMI (Man Machine Interface)

LCD	3.5" TFT (Resolution 320 x 240)	5.7" TFT (Resolution 640 x 480)
Touch Panel	-	Yes
Rubber Keypad	24 keys	6 keys
Audio	Microphone-In and Earphone-Out	
LED Indicators	3 Dual-Color LEDs (PWR, RUN, LAN1, L1, L2, L3; L1~L3 For User Programmable)	

## ■ Mechanical

Dimensions	182 mm x 158 mm x 125 mm	
Ingress Protection	Front panel: IP65	

## ■ Motion

Motion Control	one I-8091W (2-axis) or two I-8091W (4-axis) can do motion control only one I-8091W can do X-Y dependent motion.	
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## ■ PWM Output

High Speed PWM Modules	I-8088W, 8-ch. PWM outputs, 10 Hz ~ 500 KHz (non-continuous), duty: 0.1 ~ 99.9%	
D/O Module as PWM	8-ch. max. 250 Hz max. For Off=2 & On=2 ms . Output square curve: Off: 2 ~ 32766 ms, On: 2 ~ 32766 ms. Optional DO Boards: I-8037W, 8041W, 8041AW, 8042W, 8050W, 8054W, 8055W, 8056W, 8057W, 8060W, 8063W, 8064W, 8068W, 8069W (Relay Output boards can not generate fast square pulse)	

## ■ Counter, Encoder, Frequency

Parallel DI Counter	8 ch. max. for 1 controller. Counter val: 32 bit. 250 Hz max. Min. ON & OFF width must > 2 ms. Optional DI Boards: I-8040W, 8040PW, 8042W, 8048W, 8050W, 8051W, 8052W, 8053W, 8053PW, 8054W, 8055W, 8058W, 8063W.	
Serial DI Counter	Counter input: 100 Hz max. Counter value: 0 ~ 65535 (16 bit) Optional Serial I-87K DI Boards: I-87040W, 87046W, 87051W, 87052W, 87053W, 87053W-A5, 87054W, 87055W, 87058W, 87059W, 87063W.	
Remote DI Counter	All remote I-7000 & I-87K DI modules support counters. 100 Hz max. value: 0 ~ 65535	
High Speed Counter	I-8084W: 250 kHz max. 32 bit I-87082W: 100 kHz max. 32 bit; I-87088W: 500 kHz max. 32 bit	
Encoder	I-8084W: 250 kHz max. , 4-ch encoder, can be dir/pulse, or up/down or A/B phase (Quard. mode), No support Encoder Z-index.	
Frequency	I-87082W: 2-ch, 1 Hz ~ 100 kHz; I-87088W: 8-ch, 0.1 Hz ~ 500 kHz; I-8084W: 8-ch, 1 Hz ~ 250 kHz;	

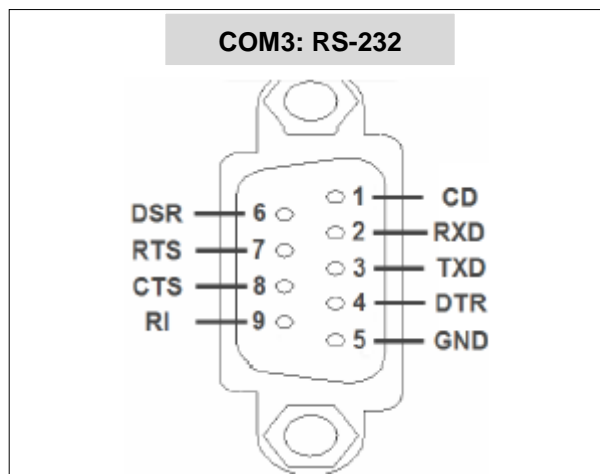
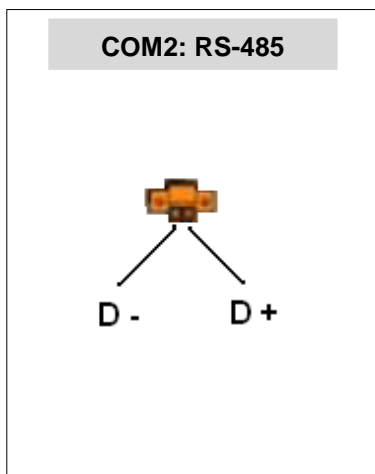
## ■ Protocols

Modbus RTU / ASCII Master Protocol (Multi-Port)	Up to <b>10</b> COM Ports (COM2, COM3 and <u>COM5~COM14 if multi-serial port boards are plugged in</u> ) can support multi-ports of Modbus RTU / ASCII Master protocol to connect to other Modbus Slave devices.	
Modbus RTU Slave Protocol	Up to <b>5</b> COM Ports (one of COM2 / 3 and COM5 ~ COM8) can support Modbus RTU Slave protocol for connecting ISaGRAF, PC/ HMI/ OPC Server & HMI panels.	
Modbus TCP/IP Slave Protocol	Ethernet Ports all support Modbus TCP/IP Slave protocol for connecting ISaGRAF & PC/HMI. LAN1 and the optional 2nd Ethernet port in I-8135W support total up to 32 connections. When one Ethernet port is broken, the other one can still connect to PC/HMI.	
Web HMI Protocol	Ethernet Ports for connecting PC running Internet Explorer	
I-7000 & I-87K RS-485 Remote I/O	One of COM2, COM3 supports <u>I-7000 I/O modules, I-87K base + I-87K Serial I/O boards and RU-87P1/2/4/8 + I-87K High Profile I/O boards</u> as Remote I/O. Max. 255 I-7000/87K Remote I/O modules for one controller.	
M-7000 Series Modbus I/O	Max. 10 RS-485 ports (COM2, 3 and <u>COM5~COM14 if multi-serial port boards are plugged in</u> ) can support M-7000 series Modbus I/O. Each port can connect up to <b>32</b> M-7000 Modules. (with optional I-7510 repeater connected can connect up to more than 32 M-7000 Modules)	
Modbus TCP/IP I/O	support ICP DAS Ethernet I/O : I-8KE4-MTCP and I-8KE8-MTCP listed at <a href="http://www.icpdas.com">www.icpdas.com</a> > <a href="#">FAQ</a> > <a href="#">Software</a> > <a href="#">ISaGRAF Ver.3 (English)</a> FAQ-042. If LAN1 is broken, it will switch to the 2nd Ethernet (in optional I-8135W card) port automatically to continuously work. (This need LAN1 & the 2nd Ethernet 's IP are set in the same IP domain)	

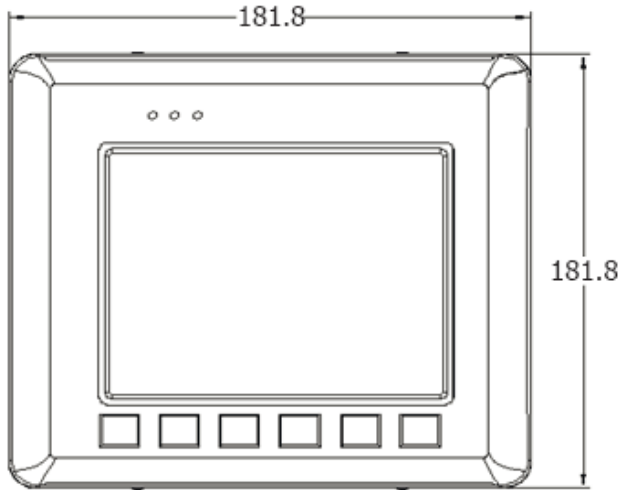


FRnet I/O	Support max 3 pcs. I-8172W boards in slot 0 to 2 to connect to FRnet I/O modules, like FR-2053, FR-2057 FR-32R, FR-32P, at <a href="http://www.icpdas.com">www.icpdas.com</a> > <a href="#">FAQ</a> > <a href="#">Software</a> > <a href="#">ISaGRAF Ver.3 (English)</a> FAQ-048. Each I-8172w board can connect up to 256 DI plus 256 DO channels.
Send Email	Supports "mail_snd" and "mail_set" functions to send email with one attached file via Ethernet port.
Ebus	To exchange data between ICP DAS's ISaGRAF Ethernet PACs via Ethernet port. ( <b>LAN1</b> Port only)
SMS: Short Message Service	One of COM3 (or COM5 if <u>multi-serial port board is plugged in</u> ) can link to a GSM Modem to support SMS. User can request data/control the controller by cellular phone. The controller can also send data & alarms to user's cellular phone. Optional GSM Modems: GTM-201-RS232 (850/900/1800/ 1900 GSM/ GPRS External Modem)
User Defined Protocol	User can write his own protocol applied at COM2, COM3 and <u>COM5~COM14(if multi-serial port boards are plugged in)</u> by Serial communication function blocks.
Modem_Link	No support Modem_Link.
MMICON/LCD	<u>COM3 or COM5(if I-8112W/8114W is found)</u> supports ICP DAS's MMICON. The MMICON is featured with a 240 x 64 dot LCD & a 4 x 4 Keyboard to display picture, string, integer, float, & input a char, string, integer & float.
UDP Server & UDP Client : Exchange Message & Auto-Report	LAN1 or the 2nd Ethernet (in optional I-8135W card) support UDP Server and UDP Client protocol to send / receive message to / from PC/HMI or other devices. For example, to automatically report data to InduSoft's RXTX driver.
TCP Client : Exchange Message & Auto-Report	LAN1 or the 2nd Ethernet (in optional I-8135W card) support TCP Client protocol to send / receive message to / from PC/HMI or other devices which support TCP Server protocol. For example, to automatically report data to InduSoft's RXTX driver, or to connect a location camera.
New Hot-Swap and Redundant System	Must enable the 2nd Ethernet port in the optional I-8135W card. This redundant system has setup two "Active IP" address point to the active VP-25W7 / VP-23W7 's LAN1 and 2nd Ethernet ports always. One or two or more PC / HMI / SCADA can communicate with this redundant system via one of the two given active IP. So the PC / HMI / SCADA can access to the system easily without any notice about which VP-25W7 / VP-23W7 is currently active. Moreover, the new redundant system can integrate with the RU-87P4 and RU-87P8 expansion unit plus the I-87K high-profile I/O cards to support the hot-swap application. If the I/O card is damaged, the maintenance person just takes one good-card with same model number to hot-swap the damaged one without stopping this redundant system. Please refer to <a href="http://www.icpdas.com">www.icpdas.com</a> > <a href="#">FAQ</a> > <a href="#">Software</a> > <a href="#">ISaGRAF Ver.3 (English)</a> FAQ-093.
CAN/CANopen	VP-25W7 / VP-23W7 can use its COM3 or <u>COM5~COM14 resides at the I-8112iW/8114W/8114iW RS-232 expansion board</u> to connect one I-7530 : the RS-232 to CAN converter to support CAN and CANopen devices and sensors. One VP-25W7 / VP-23W7 supports max.ten RS-232 ports to connect max. ten I-7530. Please refer to <a href="http://www.icpdas.com">www.icpdas.com</a> > <a href="#">FAQ</a> > <a href="#">Software</a> > <a href="#">ISaGRAF Ver.3 (English)</a> FAQ-086.

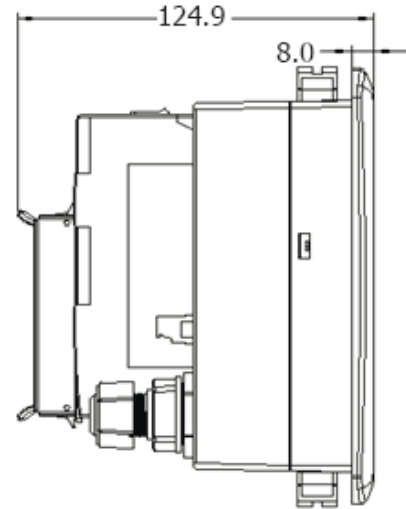
## ► Pin assignment



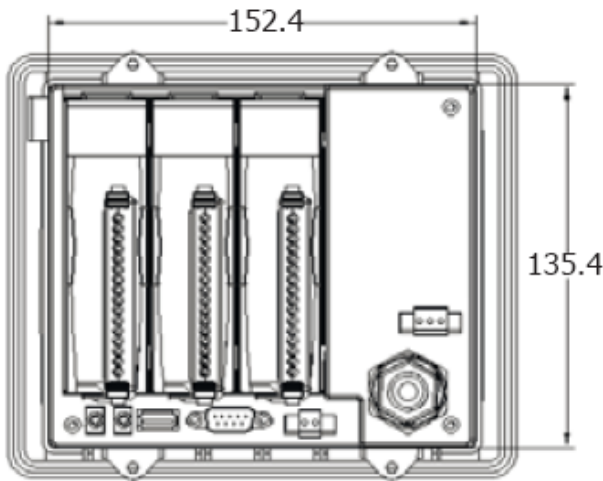
► **Mechanical Drawing**



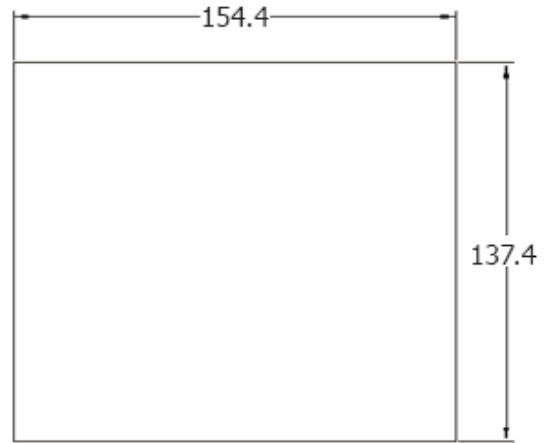
Front View



Side View

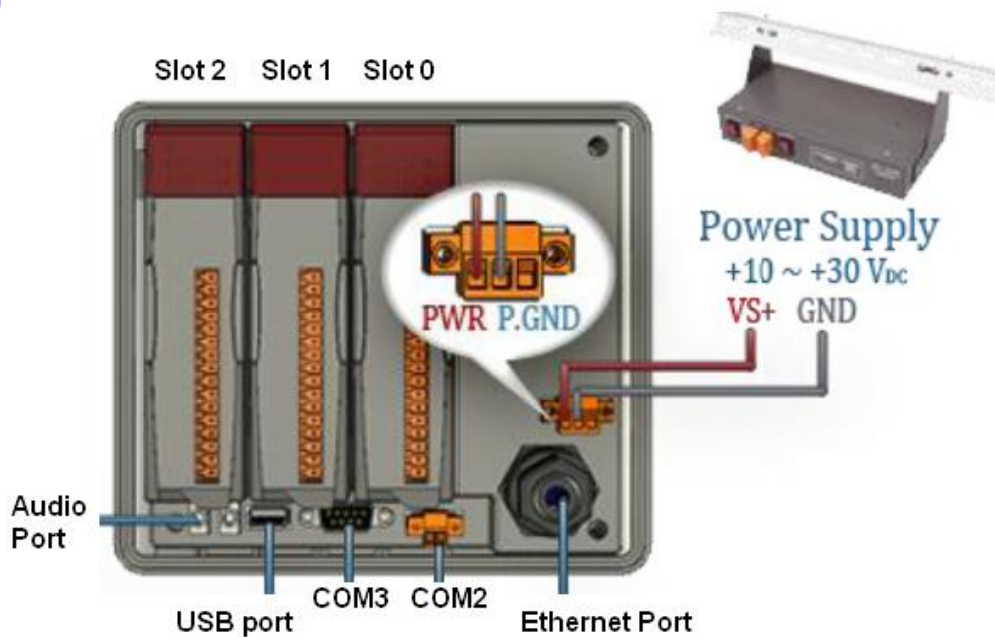


Rear View



CUTOUT

► **Wiring**





# I/O Modules Selection Guide For VP-2xW7 Series

**High Speed Local I/O Modules: Parallel Bus**

**I-8K High Profile Modules: More at [www.icpdas.com](http://www.icpdas.com) > Products > PAC - 8K & 87K I/O Modules**

I-8K Analog I/O Modules	
I-8017HW	8-ch. Diff. or 16-ch. Single-ended, 14-bit, High Speed Analog Input Module. (current input require external 125 resistor) just like I-8017HS.
I-8024W	4-ch. Isolated Analog Output Module (+/-10 V, 0 ~ +20 mA)
I-8K Digital I/O Modules	
I-8037W	16-ch. Isolated Open Collector Output Module
I-8040W	32-ch. Isolated Digital Input Module
I-8040PW	32-ch. Isolated Digital Input with Low Pass Filter Module
I-8041W	32-ch. Isolated Open Collector Digital Output Module (Sink)
I-8041AW	32-ch. Isolated Open Collector Digital Output Module (Source)
I-8042W	16-ch. Isolated Digital Input & 16-ch. Isolated Open Collector Digital Output Module
I-8046W	16-ch. Isolated Digital Input Module
I-8050W	16-ch. Universal Digital I/O Module
I-8051W	16-ch. Non-isolated Digital Input Module
I-8052W	8-ch. Differential Isolated Digital Input Module
I-8053W	16-ch. Isolated Digital Input Module
I-8053PW	16-ch. Isolated Digital Input with Low Pass Filter Module
I-8054W	8-ch. Isolated Digital Input Module & 8-ch. Isolated Open Collector Digital Output Module
I-8055W	Non-isolated 8-ch. Digital Logic Input Module & 8-ch. Open Collector Digital Output Module
I-8056W	16-ch. Non-isolated Open Collector Output Module
I-8057W	16-ch. Isolated Open Collector Output Module
I-8058W	8-ch. Differential Isolated Digital Input Module, Max. AC/DC Input : 250V
I-8060W	6-ch. Relay Output Module, AC: 0.6 A @ 125 V , 0.3 A @ 250 V; DC: 2 A @ 30 V
I-8063W	4-ch. Diff. Isolated digital input & 4-ch. Relay output module, AC : 0.6 A @ 125 V ; 0.3 A @ 250 V
I-8064W	8-ch. Power Relay Output Module, AC: 5 A @ 250 V, DC: 5 A @ 30 V
I-8068W	4-ch. Form-A, 5 A @ 250 V <sub>AC</sub> /28 V <sub>DC</sub> & 4-ch. Form-C, 5 A (NO) /3 A (NC) @ 277 V <sub>AC</sub> /30 V <sub>DC</sub> Relay Output Module
I-8069W	8-ch. PhotoMOS Relay Output Module, Max. AC/DC: 1 A @ 60 V
I-8K Counter/Frequency Modules	
I-8084W	4/8-ch. Counter/Frequency Module, Isolated or TTL Level. (Can measure 4-ch Encoder without Z-index)
I-8088W	8-ch. PWM Output and 8-ch. Isolated DI Module
I-8K Motion Modules	
I-8090W	3-axis Encoder Module
I-8091W	2-axis Stepping/Servo Motor Control Card without encoder input
I-8K Communication Modules	
I-8135W	To expand the 2nd Ethernet port for the VP-25W7 / VP-23W7
I-8112iW	2-ch. Isolated RS-232 Expansion Module
I-8114W	4-ch. non-isolated RS-232 Expansion Module
I-8114iW	4-ch. Isolated RS-232 Expansion Module
I-8142iW	2-ch. Isolated RS-422/485 Expansion Module
I-8144iW	4-ch. Isolated RS-422/485 Expansion Module
I-8172W	2-port FRnet Module

**RS-485 Remote I/O Modules: Serial Interface; HOT-SWAP**

**I-87K High Profile Modules: More at [www.icpdas.com](http://www.icpdas.com) > Products > PAC - 8K & 87K I/O Modules**

I-87K Analog I/O Modules	
I-87005W	8-ch. Thermistor Input, 16-bit, 8 Hz (Total) and 8-ch. digital output module with Open Wire Detection
I-87013W	4-ch., 16-bit, 10 Hz (Total), 2/3/4 Wire RTD Input Module with Open Wire Detection
I-87015W	7-ch., 16-bit, 12 Hz (Total), RTD Input Module with Open Wire Detection (for short sensor distance)
I-87015PW	7-ch. RTD Input Module with 3-wire RTD lead resistance elimination and with Open Wire Detection (for long sensor distance)
I-87017RW	8-ch. Diff. , 16/12-bit, 10/60 Hz (Total) Analog Input Module with 240 V <sub>rms</sub> Over Voltage Protection, Range of -20 ~ +20 mA Requires Optional External 125 Ω Resistor
I-87017RCW	8-ch. Diff. , 16/12-bit, 10/60 Hz(Total) Current Input Module
I-87017W	8-ch. Analog Input Module
I-87017W-A5	8-ch. High Voltage Input Module
I-87018RW	8-ch. Thermocouple Input Module. Recommend to use the better I-87018Z.
I-87018W	8-ch. Thermocouple Input Module. Recommend to use the better I-87018Z.
I-87018ZW	10-ch. Diff. , 16-bit, 10 Hz (Total), Thermocouple Input Module with 240 V <sub>rms</sub> Over Voltage Protection, Open Wire Detection, Range of +/-20 mA, 0~20 mA, 4~20 mA requires Optional External 125 Ω Resistor







# I/O Modules Selection Guide For VP-2xW7 Series

I-87019RW	8-ch. Diff. , 16-bit, 8 Hz (Total), Universal Analog Input Module with 240 V <sub>rms</sub> Over Voltage Protection, Open Wire Detection (V, mA, Thermocouple; Range of -20 ~ +20 mA need to set Jumper on board)
I-87024CW	4-ch. 12-bit channel to channel isolated current output module with open-wire detection
I-87024W	4-ch. 14-bit analog output module (0 ~ +5 V, +/-5 V, 0 ~ +10 V, +/-10 V, 0 ~ +20 mA, +4 ~ +20 mA)
I-87028CW	8-ch. 12-bit current output module
<b>I-87K Digital I/O Modules</b>	
I-87040W	32-ch. Isolated Digital Input Module
I-87041W	32-ch. Sink Type Open Collector Isolated Digital Output Module
I-87046W	16-ch. Non-Isolated Digital Input Module for Long Distance Measurement
I-87051W	16-ch. Non-Isolated Digital Input Module
I-87052W	8-ch. Diff. , Isolated Digital Input Module
I-87053PW	16-ch. Isolated Digital Input Module with 16-bit Counters
I-87053W	16-ch. Isolated Digital Input Module
I-87053W-A5	16-ch. 68 ~ 150 V <sub>DC</sub> Isolated Digital Input Module
I-87054W	Isolated 8-ch. DI and 8-ch. Open Collector DO Module
I-87055W	Non-Isolated 8-ch. DI and 8-ch. Open Collector DO Module
I-87057W	16-ch. Open Collector Isolated Digital Output Module
I-87058W	8-ch. 80~250 V <sub>AC</sub> Isolated Digital Input Module
I-87059W	8-ch. Differential 10-80 V <sub>AC</sub> Isolated Digital Input Module
I-87063W	4-ch. Diff. Isolated Digital Input and 4-ch. Relay Output Module 5 A (NO) / 3 A(NC) @ 5 ~ 24 V <sub>DC</sub> ; 5 A(NO) / 3 A(NC) @ 0 ~ 250 V <sub>AC</sub>
I-87064W	8-ch. Relay Output Module, 5 A (47~63 Hz) @ 0~ 250 V <sub>AC</sub> ; 5 A @ 0~ 30 V <sub>DC</sub>
I-87065W	8-ch. AC SSR Output Module, AC: 1.0 A <sub>rms</sub> @ 24 ~ 265 V <sub>rms</sub>
I-87066W	8-ch. DC SSR Output Module , DC: 1.0 A <sub>rms</sub> @ 3 ~ 30 V <sub>DC</sub>
I-87068W	4-ch. Form A Relay Output and 4-ch. Form C Relay Output Module Form A: 8 A @ 250 V <sub>AC</sub> ; 8 A @ 28 V <sub>DC</sub> ; Form C: 5 A (NO) / 3 A (NC) @ 277 V <sub>AC</sub> ; 5 A(NO) / 3 A(NC) @ 30 V <sub>AC</sub>
I-87069W	8-ch. PhotoMOS Relay Output Module, Max. AC/DC: 0.13 A @ 350 V
<b>I-87K Counter/Frequency Modules</b>	
I-87082W	2-ch. Counter/Frequency Module, Isolated or Non-isolated Inputs
<b>I-87K GPS module</b>	
I-87211W	Time-Synchronization and GPS module for getting UTC/local time and local Longitude/Latitude

## More RS-485 Remote I/O Modules at :

**I-7000** : [www.icpdas.com](http://www.icpdas.com) > Products > Remote I/O Modules/Units > I-7000 Modules > Selection Guide

**M-7000** : [www.icpdas.com](http://www.icpdas.com) > Products > Remote I/O Modules/Units > M-7000 Modules > Selection Guide

## More FRnet Remote I/O Modules at :

**FRnet I/O**: [www.icpdas.com](http://www.icpdas.com) > Products > Remote I/O Modules/Units > FRnet Remote I/O Modules > Selection Guide

## More RS-485 Remote Hot-Swap Expansion Unit at :

**RU-87P1/2/4/8** : [www.icpdas.com](http://www.icpdas.com) > Products > Remote I/O Modules/Units > RS-485 Remote I/O Unit > Selection Guide

## More RS-485 Remote Expansion Unit at :

**I-87K1/4/5/8/9**: [www.icpdas.com](http://www.icpdas.com) > Products > Remote I/O Modules/Units > RS-485 Remote I/O Unit > Selection Guide

## ▶ Ordering Information

<b>VP-23W7-EN CR</b>	ISaGRAF based ViewPAC with 3.5" LCD (English version of OS) (RoHS)
<b>VP-25W7-EN CR</b>	ISaGRAF based ViewPAC with 5.7" Touch LCD (English version of OS) (RoHS)
<b>VP-23W7-TC CR</b>	ISaGRAF based ViewPAC with 3.5" LCD (Traditional Chinese version of OS) (RoHS)
<b>VP-25W7-TC CR</b>	ISaGRAF based ViewPAC with 5.7" Touch LCD (Traditional Chinese version of OS) (RoHS)
<b>VP-23W7-SC CR</b>	ISaGRAF based ViewPAC with 3.5" LCD (Simplified Chinese version of OS) (RoHS)
<b>VP-25W7-SC CR</b>	ISaGRAF based ViewPAC with 5.7" Touch LCD (Simplified Chinese version of OS) (RoHS)

## ▶ Accessories

\* Using ISaGRAF-32 to control more than 32 I/O tags.  
(Please refer to ISaGRAF User's Manual Ch. 3.4)

ISaGRAF-256-E	ISaGRAF Workbench Software Ver.3 (256 I/O Tags) with USB Dongle and English application book
ISaGRAF-256-C	ISaGRAF Workbench Software Ver.3 (256 I/O Tags) with USB Dongle and Chinese application book
ISaGRAF-32-E	ISaGRAF Workbench Software Ver.3 (32 I/O Tags) with English application book (Note)
ISaGRAF-32-C	ISaGRAF Workbench Software Ver.3 (32 I/O Tags) with Chinese application book (Note)
ISaGRAF Book-E	ISaGRAF application book (English version)
ISaGRAF Book-C	ISaGRAF application book (Chinese version)

**Note:** Do not offer upgrade service from ISaGRAF-32 to ISaGRAF-256.

