



## PV080-VNT ; PV104-VNT / PV084-TNT ; PV121-TNT

### 8" / 8.4" / 10.4" / 12.1" Genuine 65535-colors TFT Touch panel

PV series Touch Panel, such as PV080-VNT/ PV084-TNT/ PV104-VNT/ PV121-TNT, are expert HMIs with high functions and reasonable price answer to the needs for most of the automation equipments and systems. High coordination screen with plentiful colors relieve high speed and high quality. The industrial standard design let PV products even meets harsh environment can still work for long and steady.

#### FEATURES

- Portrait 90° display & normal horizontal display supported.
- 100% quality test and industrial standard coating cases let PV look reliable and nice.
- Adopts 32 bits high function; high reliability and fan-less ARM CPU.
- Equipped with genuine 65535 true colors, high brightness TFT modules.
- Provides 3 RS232/422/485 communication ports available in standard models.
- The standard 128KB backup memory, which can expand up to 1MB, allows storing Alarm, Recipe and historical data.
- Supports multi-languages, Windows build-in Fonts, BMP and JPG graphics and GIF animations.
- Provides transparent communication for designers to save their program adjustment time.
- The ultimate patent front panel design inspired customers to make their own HMI membrane styles.
- The extension bus extends various customized devices, such as motion control, temperature control, communication module and I/O module...etc.
- High speed Ethernet port supports upload and download remote communication.

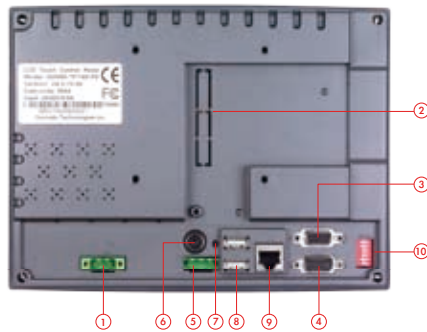
## INTRODUCTION

Apart from the basic functions other HMIs may have, PV supports most PLC, inverter and temperature controller drivers on the market. Cermate is laboring on the networking to provide LAN function for standard models. The ultimate patent front panel design inspired customers to make their own HMI membrane styles. In addition to completely communication interfaces, flexible hardware design enables Ethernet TCP/IP operation. The modernistic outward, high brightness LCD with considerable memory let PV win good reputations from users applying HMI in factory automation, wise buildings and special tool machines.

## SPECIFICATIONS

**Processor\_** RISC 32 Bits CPU  
**Display Type\_** TFT Color LCD with 65535 colors  
**Resolution\_** PV080 (8" diagonal) / PV104 (10.4" diagonal): 640x480 pixels  
 PV084 (8.4" diagonal) / PV121 (12.1" diagonal): 800x600 pixels  
**Communication\_** 3 Serial Ports (COM1/COM2/COM3)  
**USB Port\_** 2 USB Host Ver2.0 Full Speed Ports  
**Ethernet Port\_** 10/100M Ethernet Port  
**Text Range\_** 6x8 dot font~96x96 dot font / Windows Build-in Fonts  
**Input Power\_** DC20V~DC28V  
**System Working Memory\_** 64 MB SDRAM Memory (Maximum 128 MB)  
**Program Application Memory\_** 16 MB Flash Memory (Maximum 64 MB)  
**Battery Backup Memory\_** 128 KB (Standard) ~ 1 MB (Optional)  
**Power Consumption\_** 20W

- ① DC24V Power Connector
- ② Extension Port (Ex. Profibus Module for Optional)
- ③ Com1 (RS232/422/485) DB9\_Female
- ④ Com2 (RS232/485) DB9\_Male
- ⑤ Com2 (RS422/485) 4 pin Terminal
- ⑥ Com3 (RS232) Round\_6pin\_Female
- ⑦ Hardware Reset key
- ⑧ USB Ver2.0 Full speed Host Port x 2
- ⑨ 10/100M Ethernet port
- ⑩ DIP\_SW 1-6

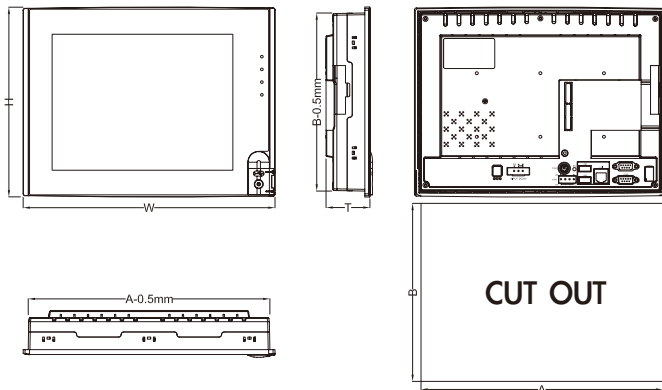


## OUTLET DIMENSIONS

PV080/PV084: 232.5 mm [9.15"] W x 175.8 mm [6.75"] H x 49 mm [1.93"] T  
 PV104: 297 mm [11.70"] W x 224 mm [8.82"] H x 52 mm [2.05"] T  
 PV121: 315 mm [12.41"] W x 241 mm [9.49"] H x 54.5 mm [2.15"] T

## CUTOUT DIMENSIONS

PV080/PV084: 221.5 mm [8.72"] A x 164 mm [6.46"] B  
 PV104: 285.5 mm [11.24"] A x 210.5 mm [8.29"] B  
 PV121: 301.5 mm [11.87"] A x 228.0 mm [8.98"] B



## ENVIRONMENTAL

**Operating Temperature\_** 0°~50°C (32°~ 120°F)  
**Relative Humidity\_** 10% ~ 90% @ 50°C, non-condensing  
**Shock (Operation)\_** 10 to 55Hz (X, Y, Z direction, 1G 30 Min.)  
**EMI\_** Complies with FCC Part 15 Class A  
**EMC\_** Complies with EN55022, EN61000-4-2, EN61000-4-3, EN61000-4-8  
**Front Panel\_** Meets NEMA4 / IP65F

## NET WEIGHT

PV080-VNT: 0.9 KG; PV084-TNT: 0.9 KG; PV104-VNT: 1.4 KG; PV121-TNT: 2.2 KG  
 PV080-VFT: 1.1 KG; PV084-TFT: 1.1 KG; PV104-VFT: 1.6 KG; PV121-TFT: 2.5 KG

## CERTIFICATIONS

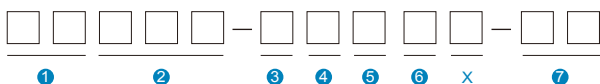
CE, FCC Approved

## LCD SPECIFICATIONS

**Display Type\_** TFT LCD Module  
**Display Size\_** 8.0"/ 8.4"/ 10.4" and 12.1" (diagonal)  
**Color\_** Genuine 65535-colors  
**Brightness\_** 350cd/m<sup>2</sup>~450cd/m<sup>2</sup>  
**Storage Temperature\_** -20 ~ 60°C  
**Operation Temperature\_** 0 ~ 50°C  
**Backlight Tube\_** PV080: CCFL(U type)x1 ; PV084: CCFLx2 ;  
 PV104: CCFLx2 ; PV121: CCFLx2  
**Contrast\_** 200:1~1500:1  
**Signal Interface\_** TFT LVDS or TTL interface

All the specifications and photos are subjected to be changed without notice.

## PanelVisa Industrial Touch Panel



Taiwan: Cermate Technologies Inc.  
 China: Shenzhen Cermate Technologies Inc.

## ORDERING INFORMATION:

- ① Model: PV Series; RISC 32 Bits CPU
- ② LCD Size: 080 = 8 inches ; 084 = 8.4 inches ; 104 = 10.4 inches ; 121 = 12.1 inches
- ③ LCD Resolutions: V= 640 x 480 Dots ; T=800x600 Dots.
- ④ CPU Board I/O Specifications: S= Serial Ports; N= LAN Port; F= Full Functions (LAN Port + CF Card)
- ⑤ Operation Type: T= Touch Panel; K=Function Key
- ⑥ CPU Port Specifications: 3=Serial Type (3 Serial Ports);  
4/8=Network Type (LAN+USB+COM, 4/8 Wire Touch)
- ⑦ Case color : B0= Black; C0= White; F0= Silver Black; G0= Silver White