

WOP-2104V

10.4" SVGA Operator Panel with PM Designer 2.0 Software



Features

- Various LCD sizes (3.5", 5.7", 7", 8", 10.4", 12.1")
- Supports ARM9-based CPUs with 70~200MHz and 4~16M flash memory size
- Supports RTC, battery backup RAM, and Ethernet-based operator panels
- Supports Runtime data downloads through Serial, Ethernet, USB
- Supports adjustable brightness controls via touch panel
- Reliable firmware for 24/7 operation
- Supports Windows XP/ Vista-based PM Designer 2.0 development tool
- Easy to switch one application to different LCD sizes in seconds
- Supports vertical and horizontal application screen rotation
- Supports over 250 PLC industrial communication protocols
- Communicates with up to four types of devices
- Panel mounting for machinery

Introduction

To satisfy the stringent standards required in the automation market, especially packaging, label slitting, and motion-based robot dispensing, Advantech offers the WOP-2000 series which are designed with ARM9-based RISC CPU with 70~200MHz and 4~16MB flash memory size for application software. The WOP-2000 series also support a variety of LCD size from 3.5" to 12.1" for different applications involving the use of PLCs, motion/thermal controllers, inverters and sensors. PM Designer 2.0 is a software development kit which helps create application solutions for labor-saving, improved efficiency of manufacturing and easy control of every machine in the factory. The WOP-2000 series is bundled with PM Designer 2.0 offering an outstanding price performance ratio for various markets such as conventional operator panels, HMI + Low mini SCADA systems, and HMI + communication gateways.

Specifications

General

- **Certifications** CE / FCC / BSMI / UL / CCC
- **Dimensions (WxHxD)** 297 x 224 x 52 mm (11.6" x 8.8" x 2.04")
- **Cut-out Dimensions** 285.5 x 210.5 mm (11.24" x 8.28")
- **Front Panel Thickness** 6mm
- **Operating System** HMI RTOS, PM Designer 2.0
- **Power Supply Voltage** 24V_{DC} ±10%
- **Power Consumption** 25W
- **Enclosure Housing** Plastic
- **Mounting** Panel
- **Weight (Net)** 1.55 kg (3.41 lbs)

System Hardware

- **CPU** RISC 32bits, 200MHz
- **Battery Backup Memory** 128KB
- **Flash Memory** 16MB
- **Power-On LED** Yes
- **Communication LED** COM1, COM2 and COM3
- **Front USB Access** Yes

Communication Interface

- **COM1** RS-232/422/485 (DB9 Female)
- **COM2** RS-232/422/485 (DB9 Male & 5-Pin Plug Connector)
- **COM3** RS-232 (6-Pin Plug Connector)
- **Ethernet (RJ45)** 10/100-BaseT
- **I/Os**
 - USB Client Yes
 - USB Host No
 - Micro-SD Slot No

LCD Display and Touchscreen

- **Display Type** SVGA TFT LCD
- **Display Size** 10.4"
- **Max. Resolution** 800 x 600
- **Max. Colors** 65,536 colors
- **Luminance (cd/m²)** 300
- **Viewing Angle (H/V°)** 140/120
- **Backlight Life** LED, 30,000
- **Dimming** Adjustable by touch panel
- **Touchscreen** 4 wire analog resistive

Environment

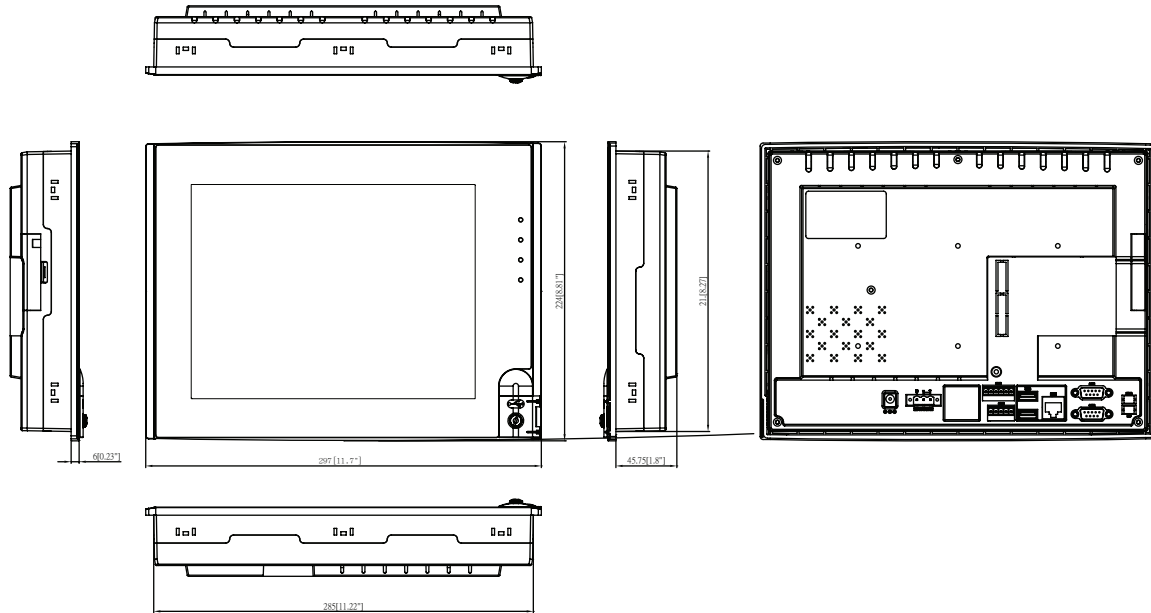
- **Operating Temperature** 0 ~ 50° C (32 ~ 122° F)
- **Storage Temperature** -20 ~ 60° C (-4 ~ 140° F)
- **Humidity** 10 ~ 95% RH @ 40° C, non-condensing
- **Ingress Protection** Front panel: NEMA4, IP65
- **Vibration Protection** Operating, random vibration 1 Grms (5 ~ 500 Hz)

Ordering Information

- **WOP-2104V-N4AE** 10.4" SVGA, 16MB, RS-232/422/485, Ethernet

Dimensions

Unit: mm



Panel Cut-out Dimensions: 285.5 x 210.5 mm (11.24" x 8.28")

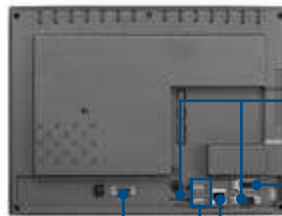
- 1 Operator Panels
- 2 Fanless Panel PCs
- 3 Panel Computers
- 4 Display Solutions
- 5 Ethernet Switches
- 6 Device Servers
- 7 Serial Comm. Cards
- 8 Video Surveillance
- 9 Pre-Configured Systems

Front USB Access



Front USB

Rear View



COM 2 (RS-232/422/485)
COM 1 (RS-232/422/485)
Power Input
USB
Ethernet

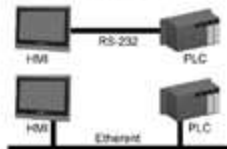
HMI Development Software Features



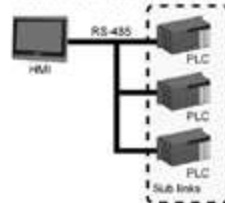
Communication Links

Direct Link

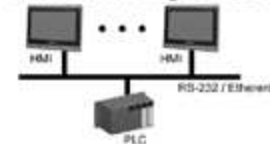
1-to-1 Connection



1-to-N Connection

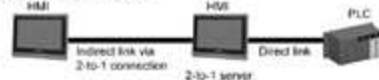


N-to-1 Data Sharing Connection

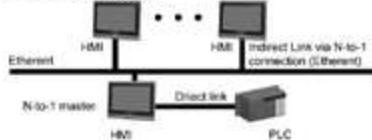


In-Direct Link

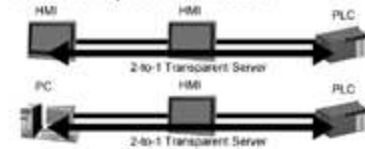
2-to-1 Connection



N-to-1 Connection



2-to-1 Transparent Connection



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