

# WebOP-2040T

## 4.3" WQVGA Operator Panel Installed with WebAccess/HMI Software



### Features

- ARM9™ 32-bit, 200 MHz RISC processor with 128 MB flash memory
- Includes a RTC, battery backup RAM, and Ethernet-based operator panels
- Supports runtime data downloads through serial, Ethernet, and USB interfaces
- Supports brightness controls via touch panel
- Reliable firmware for 24/7 operation
- Supports the WebAccess/HMI Designer development tool on Windows XP/Vista/7
- Easy to run applications on screens of any screen
- Supports operation in both landscape and portrait mode
- Supports over 450 PLC industrial communication protocols
- Can communicate with up to four device types
- Panel mount design ensures easy installation
- IP66-rated front panel

### Introduction

To fulfill the stringent standards of the automation market, especially for packaging, label slitting, and robot dispensing applications, Advantech developed the WebOP-2000T series for diverse operations that involve PLCs, motion/thermal controllers, inverters, and sensors. Powered by an ARM9™ 32-bit, 200 MHz RISC processor with 128 MB flash memory, the WebOP-2000T series systems are available with LCDs of varying size (from 4.3 to 10.1"). Additionally, WebOP-2000T systems are bundled with Advantech's WebAccess/HMI software – a web browser-based human-machine interface designed for HMI applications to reduce labor and improve manufacturing efficiency through visualization.

### Specifications

#### General

- **Certification** CE, BSMI, CCC, UL, FCC Class A
- **Dimensions (W x H x D)** 130 x 106.2 x 36.4 mm (5.11 x 4.18 x 1.43 in)
- **Cutout Dimensions** 118.5 x 92.5 mm (4.66 x 3.64 in)
- **Front Panel Thickness** 5 mm (0.19 in)
- **Operating System** HMI RTOS, WebOP Designer
- **Power Supply Voltage** 24V<sub>DC</sub> ±10%
- **Power Consumption** 5W
- **Enclosure Housing** Plastic
- **Mount Options** Panel
- **Weight (Net)** 0.3 kg (0.66 lbs)

#### System Hardware

- **CPU** ARM9™ 32-bit, 200 MHz RISC processor
- **Battery Backup Memory** 128KB
- **Flash Memory** 8MB/ 8MB + 128M NAND flash
- **Power-On LED** Yes
- **Communication LED** No
- **Front USB Access** No

#### Communication Interface

- **COM1** RS-232/422/485 (DB9 Female)
- **COM2** RS-422/485 (5-Pin plug connector)
- **COM3** RS-232 (COM1: Pin 5, 7, 8)
- **Ethernet (RJ45)** 10/100BASE-T (for N1AE model)
- **I/O** 1 x USB (Client)  
1 x USB (Host)  
1 x Micro SD Slot (for N1AE model)

#### LCD and Touchscreen

- **Display Type** WQVGA TFT LCD
- **Display Size** 4.3"
- **Max. Resolution** 480 x 272
- **Max. Colors** 65,536 colors
- **Luminance (cd/m<sup>2</sup>)** 400
- **Backlight Life** LED, 20,000 hr
- **Dimming** Adjustable by touch panel
- **Touchscreen** 4 wires analog resistive

#### Environment

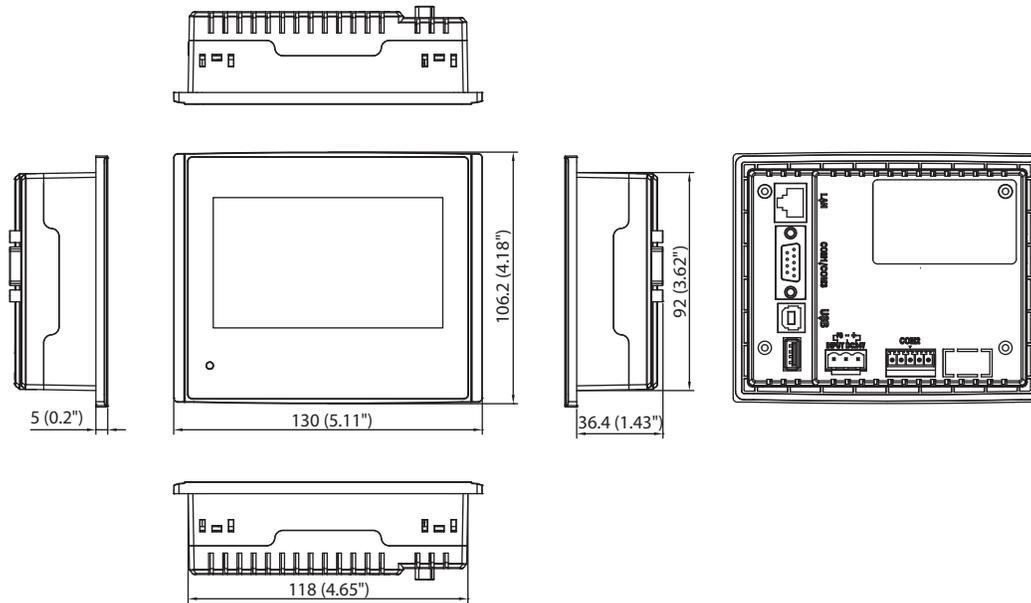
- **Operating Temperature** 0 ~ 50 °C (32 ~ 122 °F)
- **Storage Temperature** -20 ~ 60 °C (-4 ~ 140 °F)
- **Humidity** 10 ~ 90% RH @ 40°C, non-condensing
- **Ingress Protection** Front panel: IP66
- **Vibration Protection** Operating, random vibration 1 Grms (5 ~ 500 Hz)

### Ordering Information

- **WOP-2040T-S1AE** 4.3" WQVGA, 32MB (SDRAM), 8MB (NOR)
- **WOP-2040T-N1AE** 4.3" WQVGA, 32MB (SDRAM), 8MB (NOR) & 128MB (NAND)

## Dimensions

Unit: mm

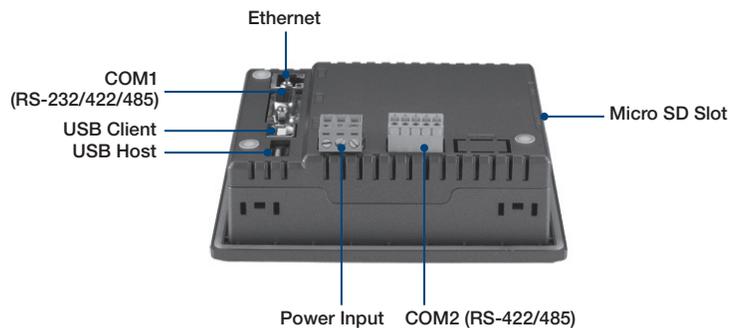


**Panel Cutout Dimensions: 118.5 x 92.5 mm (4.66 x 3.64 in)**

## Optional Accessories

- **PWR-247-CE** 100-240V 60W 24V 2.5A Power Supply
- **1702002600** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
- **1700000596** Power Cable China/Australia Plug 1.8 M

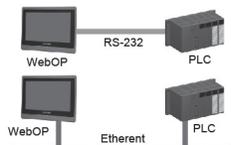
## Rear View



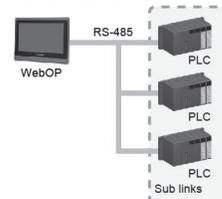
## Communication Links

### Direct Link

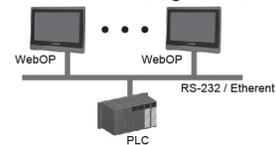
#### 1-to-1 Connection



#### 1-to-N Connection



#### N-to-1 Data Sharing Connection

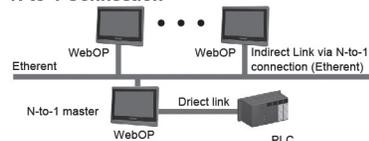


### In-Direct Link

#### 2-to-1 Connection



#### N-to-1 Connection



### 2-to-1 Transparent Connection

