

Silver Series

Maple Systems offers the HMI504T Operator Interface Touchscreen (OIT) guaranteed to meet your needs and your budget. The HMI504T has advanced features, power, and versatility – all at low cost.

The economical 4.3” 256-color TFT touchscreen comes with 2 MB of storage memory for graphics-intensive screens. With tens of thousands of units in the field, the Silver Series has proven to be reliable OITs for harsh industrial environments.

Compare the following Silver Series features and see for yourself why the HMI504T operator interface is the best value in OITs on the market today...

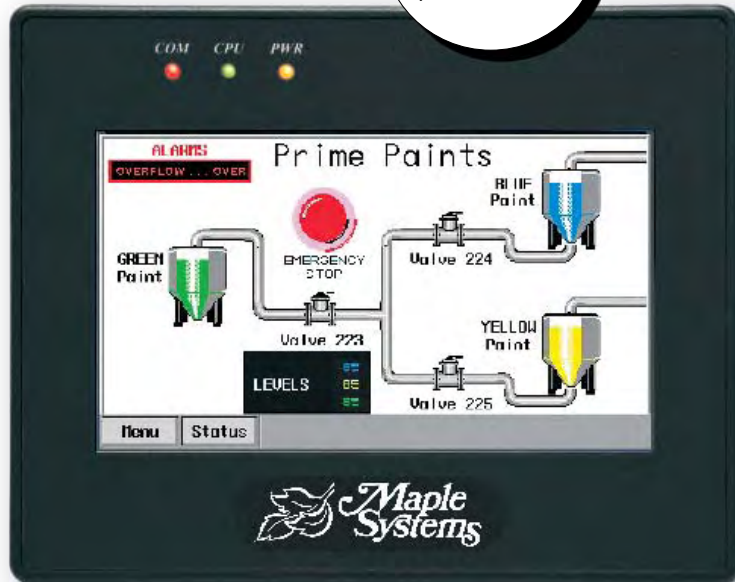
HMI504T

at **\$299***

lowest in the industry

- 4.3” 256 color TFT
- Higher brightness
- Better contrast
- Wider viewing angle than any TFT display touchscreen on the market today

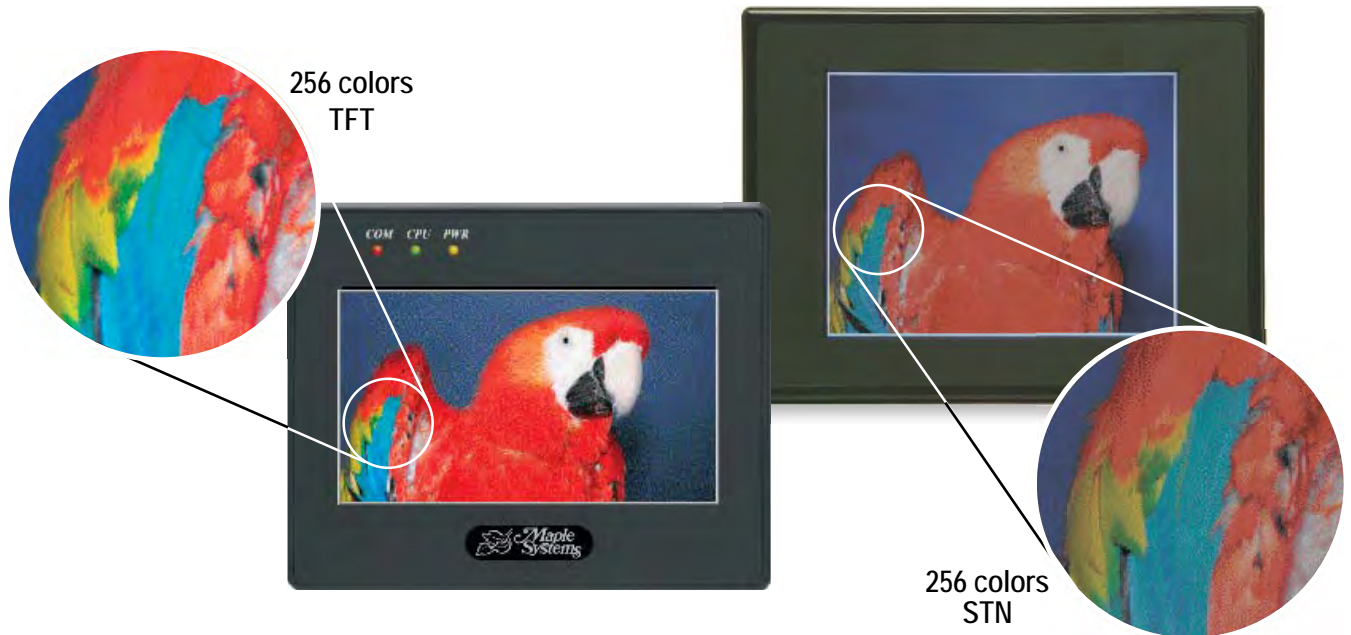
4.3”
480 x 272
pixel resolution



TFT Display

8 Bit 256 Colors

HMI504T OITs use high quality TFT displays that support up to 256 colors. More color provides the opportunity to create screens that are intuitive and interesting. TFT displays are superior to STN displays used by some of our competitors.



Landscape or Portrait Mode

For added flexibility, you can mount the OIT onto the panel in landscape or portrait mode.

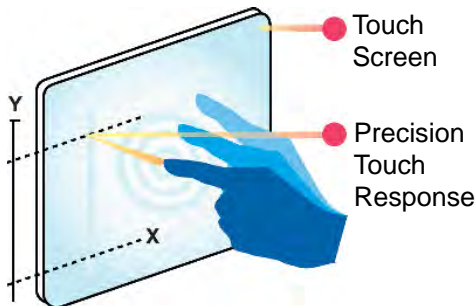


Dependable Hardware

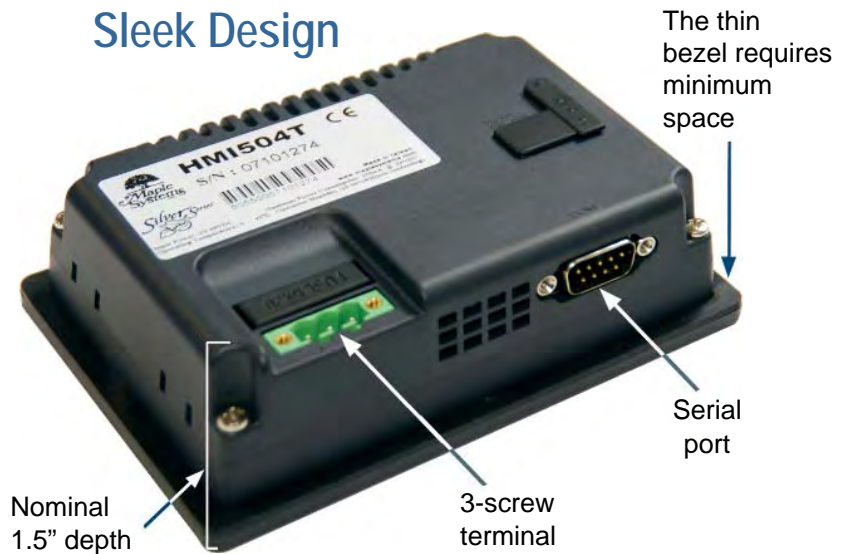
The HMI504T is designed to meet today's tough standards for durability and control. Rated for NEMA 4 IP65 installations, this OIT also meet CE requirements for electrical noise emissions and immunity. The touchscreens use bright displays that support 256 color graphics to give a vivid representation of real-life objects such as lamps and switches. The built-in RISC-based 200Mhz processor and high-speed data communications port assures fast screen updates and reaction to keypresses. The analog resistive touchscreens have a minimum lifespan of over 1 million keypresses guaranteeing optimum performance. The efficient memory storage of the HMI504T allows you to create many graphic-intensive screens for complex projects. With these features, the HMI504T is designed to meet your OIT needs for many years.

Versatile Touchscreen

- Analog resistive
- Overlap objects
- Fine resolution
- Objects any size, any location



Sleek Design



Low Power Requirement

- Wide operating voltage of 12-28 VDC
- Low current consumption
- Hi/lo backlight intensity mode
- Great for mobile applications



Enhanced PLC Connectivity

Wide Range of PLCs Supported

The HMI504T has one serial port used for programming and PLC support for RS-232, RS-485 2-wire, and RS-485 4-wire.

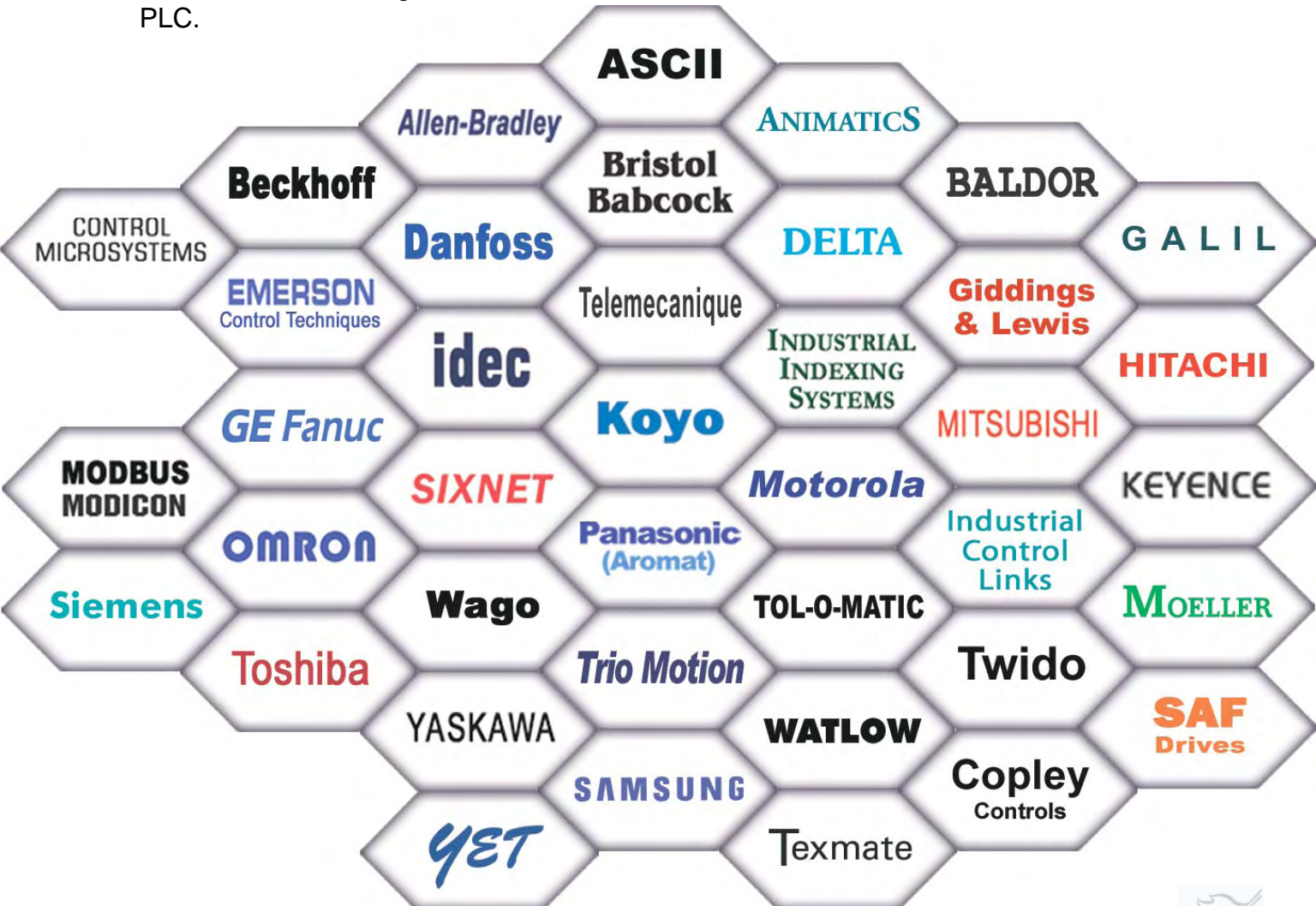


HMI504T



Serial Connection

With a wide selection of communications drivers to choose from, you don't have to waste time learning a new OIT when using a different PLC.



Advanced Functional Features

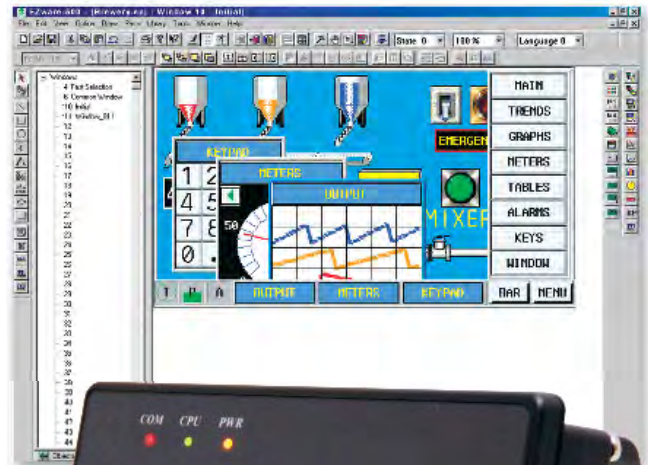
Design the Screens You Want

The full-featured, easy-to-use configuration software, EZware-500, gives you the power to design your screens exactly the way you want. The help screens give you the answers you need instantly, and familiar drag and drop technology makes it easy to move or resize images.

Versatile Screen Design

Using the EZware-500 software, designing screens for your OIT is a snap:

- Create up to 1990 screens (dependent upon available memory)
- Import bitmaps to permanently store in your image libraries
- Create your own graphic shapes using the built-in drawing tools
- Copy projects, screens, or objects easily
- Zoom feature for detailed work
- Group objects together and save them into a library to use again
- Multiple text size and colors available



Windows Operation

Create popup windows that are displayed only when you need them. Minimize popup windows to an icon or move around the screen. Use the optional menu bar for fast keys.

Animation

Enhance your screens using animation and moving shapes. Simulate a sequence of events on your OIT screen. Display up to 32 different states of an object according to values read from the PLC.



Advanced Functional Features

Bar Graphs

EZware-500 software provides many options when creating bar graphs, including:

- Variable Alarm limits
- Selectable colors for alarm, normal background and frame
- Transparency feature for tanks

Meters

Analog meters have many options that allow you to represent variables such as temperature or pressure.

- Analog with four styles
- Two needle indicator styles
- Easily change range and color

Trend Graphs

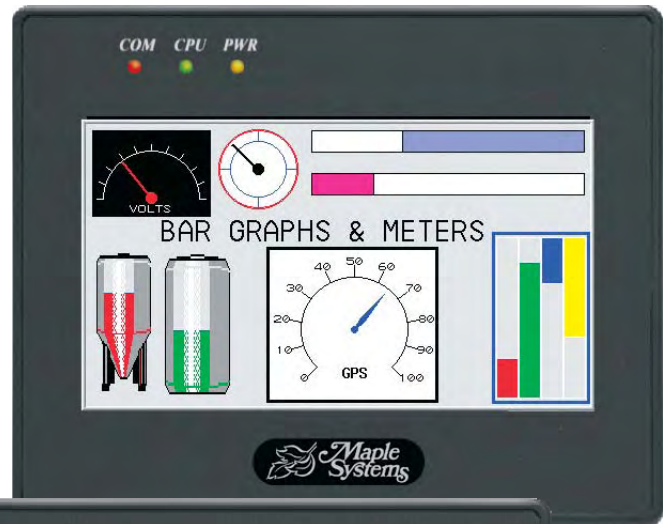
Represent complex related data in a simple format using a trend graph.

- Retrieve PLC data over time
- Up to 16 channels
- Select single or multiple pages
- Sampling rate: 0 to 65,000 sec.
- Plot points per graph: 10 to 255
- Hold, scroll, and clear features

Lamps, Pushbuttons, Multi-State Switches

Select from an extensive collection of images available in the graphic libraries or import bitmaps, or create your own custom designs.

- Up to 32 states
- Any size
- Overlap objects
- Activate macros



Easy To Use Software

Offline

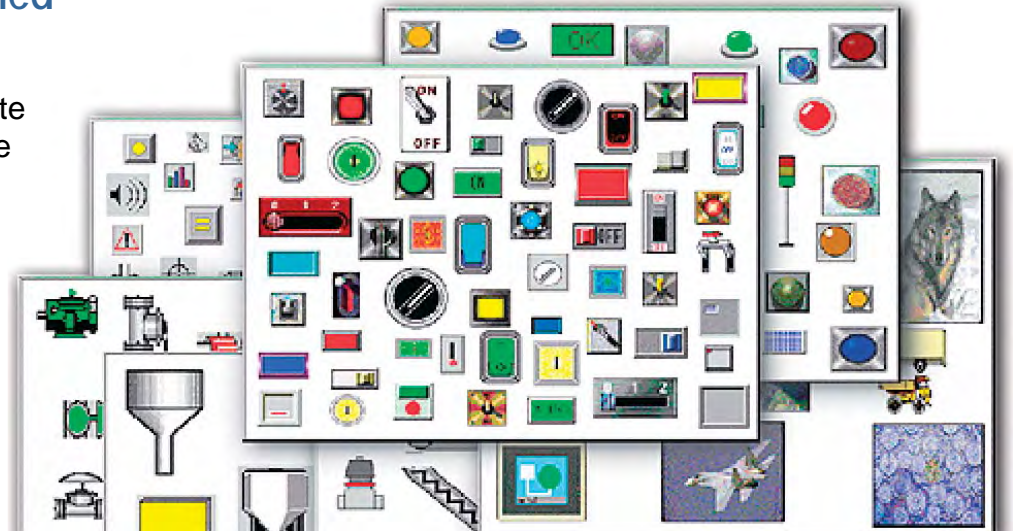
Simulation Mode

The HMI504T has three modes for project simulation – one offline and two online. Use offline simulation to immediately test the operation of the OIT on your computer (no OIT necessary). Online simulation allows testing your project using your computer and your PLC. No need to waste time downloading the project to the OIT first before testing.



Over 500 Predefined Graphics Images

Don't have time to create your own images? Save time by using ours. EZware-500 has over 500 of the most commonly used industry symbols – including lamps, switches, motors, pumps and more.



Multi-language Feature

Configure up to four different text labels for each object on the OIT screens. This allows the programmer to create one project that can display text up to four languages with the press of a button.

English



French



Spanish



Easy To Use Software

Create Exactly What You Want

There is no limit to the freedom you have when creating screens for your OIT. Multiple text sizes allow text to be displayed in varying colors and sizes. Assign up to 32 different states to any object. Lamps can be configured to blink, shown with a text label, or any color of your choosing. Use predefined lamps, function keys, keypads, or create your own custom objects.

Lamps
Graphically represent the current state of bits and registers in your controller (up to 32 states)

Displays
Display text using eight font sizes and 256 colors. The EZware-500 configuration software also includes a Font Maker that allows you to create any special characters, font style or font size you want.

Switches
Set bits and registers in your controller using toggle and multi-size switches. (up to 32-states).

Counters

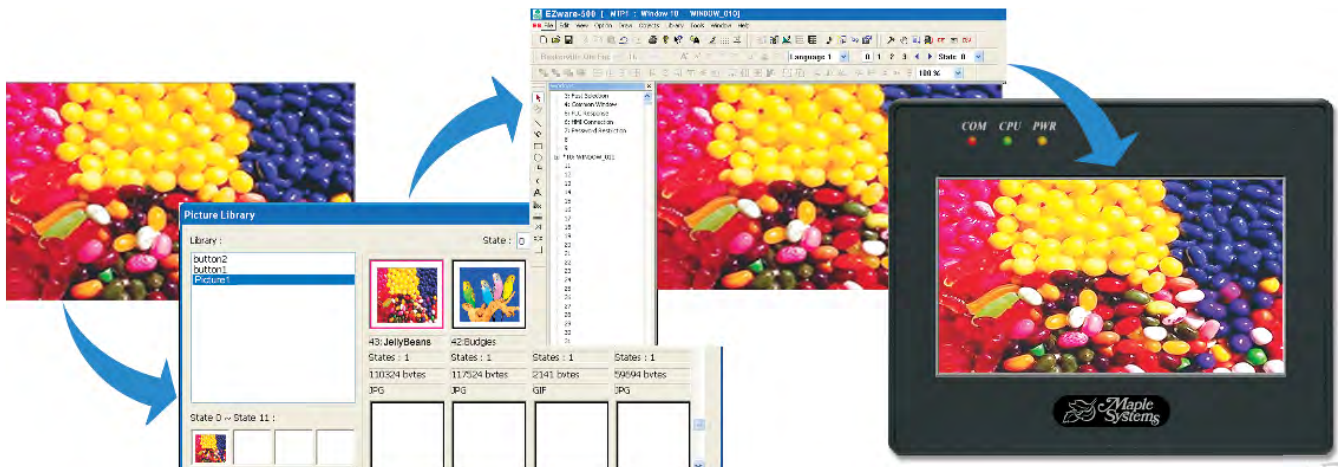
Pushbuttons



The screenshot shows a simulated control panel for a Maple Systems machine. At the top, there are three indicator lamps labeled 'COM', 'CPU', and 'PWR'. Below them are five larger lamps labeled 'POWER', 'RUN', 'JOG', 'ALARM', and 'JAM'. A central display area shows 'Trend Graph' on the left, 'Clear Jam To Continue' in the middle, and 'Motor Speed' on the right. Below these are two digital displays showing '529' (GOOD) and '13' (BAD). A rotary switch is labeled 'MODE' with 'FWD', 'REV', and 'STOP' positions. To the right is a 'BATCH NUMBER' display showing '4804'. At the bottom are five pushbuttons labeled 'START', 'STOP', 'JOG', 'RUN', and 'RESET'. The Maple Systems logo is at the bottom center.

Import Custom Pictures

Easily import and store your custom pictures (using Bitmap) into the configuration software. 256-color (8 bit) images are supported. Once stored into a picture library, these images are readily available for any new project that you create.



The screenshot shows the EZware-500 software interface. A 'Picture Library' window is open, displaying a list of images. The 'Library' section shows 'button2', 'button1', and 'Picture1'. Below this, there are four entries for '43 JellyBeans', '42 Bjudges', and two 'States: 1' entries. The 'States: 1' entries show file sizes: '130524 bytes', '117524 bytes', '2341 bytes', and '59094 bytes'. The 'Picture Library' window is positioned over a simulated control panel that displays a custom picture of colorful jelly beans. The Maple Systems logo is visible at the bottom of the control panel.

HMI504T Specifications

Hardware

CPU Type	200MHz 32-bit RISC
Memory	2MB Flash, 4MB DRAM
Serial Port	RS-232 (HMI to PC) port RS-485/RS-485 (HMI to PLC) port
RTC	None

Display

Type	4.3" TFT color
Size (WxH)	3.74 x 2.12 inches [95.0 x 53.9 mm] 4.3" diagonal
Resolution (pixels)	480 x 272
Brightness (cd/m ²)	300
Contrast Ratio	400:1
Max Colors	256 (8 bit)
Viewing Angle (°)	80/80/80/80 (T,B,R,L)
Backlight Longevity	50,000 hrs

Touchscreen

Type	4 wire analog resistive
Resolution	Continuous
Light Transmission	Above 80%
Lifespan	1 million activations minimum

Environmental

Operating Temperature	32 ~ 113°F (0~45°C)
Storage Temperature	-22 ~ 158°F (-30 ~ 70°C)
Relative Humidity	10-80% rH@40°C non-condensing
Shock (operation)	10 to 25Hz (X,Y,Z direction 2G, 30 min)
Ratings	NEMA4/IP65

Functionality

Popup Windows	Display multiple popup windows that can be minimized or maximized on screen
Graphics Libraries	Extensive graphics libraries
Simulation Mode	Easily test projects under simulation mode
Security	3 levels
Macros	Math functions
Touchable Objects	Place objects of any size, anywhere
Alarm/Event Management	Trigger on bit or word Capture time/date information Display as marquee or list box
Trending	Up to 16 channels Single or Multiple Page Sampling time 0-65,535 secs Hold Feature
Landscape or Portrait Orientation	Flexible to meet space requirements
Power Save Mode	Dims display to reduce power consumption

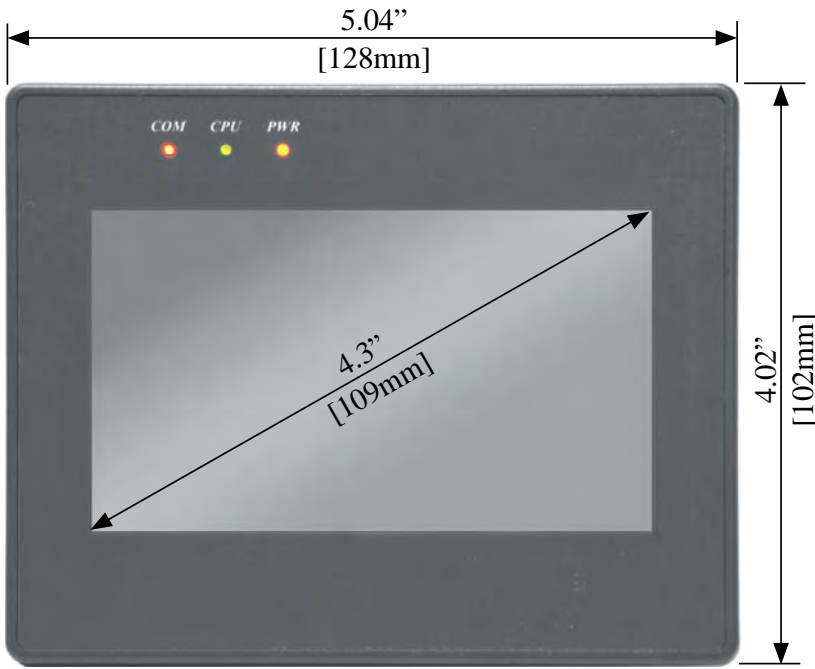
Mechanical

Enclosure	Plastic molding
Dimensions (WxHxD)	5.0 x 4.0 x 1.5 inches [128 x 102 x 38 mm]
Panel Cutout Dimensions (WxH)	4.7 x 3.6 inches [119 x 93 mm]
Weight	0.7 lbs [0.3 kg]
Mounting	Panel
Power Requirements	12-28VDC, 300mA maximum
Warranty	2 years

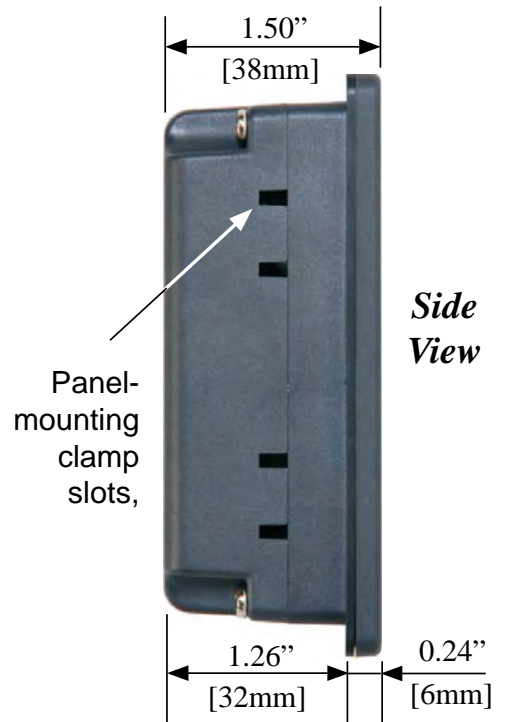
Order Number

HMI504T	4.3" TFT Graphic OIT
HMI504T-KIT	HMI504T with software and configuration cable

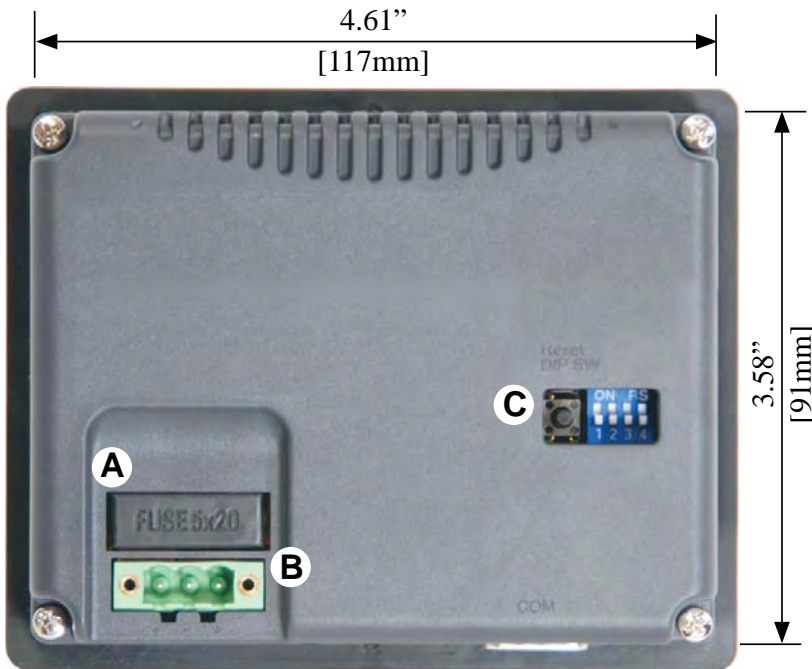
* Specifications and pricing may change without notice.



Front View



Side View



Rear View



Bottom View

- A Fuse**
- B Power Connector**
- C DIP SW and Reset button**
- D Com PC [RS-232]
PLC [RS-232]
PLC [RS-485]**



808 134th St SW, Suite 120
 Everett, WA 98204
 425.745.3229
 425.745.3429 (fax)
 maple@maple-systems.com
 www.maplesystems.com



Maple Systems, Inc.

808 134th Street SW, Suite 120
Everett, WA 98204-7333

Reset
DIP SW



FUSE 5x20



COM