



- True, Windows-like operation right on your HMI
- Multiple pop-up windows give you extra space & functionality
- Fast-selection window provides quick access to any of the 1900 available screens

[See Below For Details](#)

Want big features, bold, bright graphics and a small price tag? See why the HMI520T is your perfect operator interface...

- **Introducing our new 6" TFT HMI520T- for the same price as our 6" STN HMI520C**

The new HMI520T replaces both the HMI520C (STN) and HMI520H (TFT) - for the same price that we charged for the STN display. That's a \$300 savings over our previous 6" TFT for a bolder, brighter, higher-contrast display. Although most features remain the same on the HMI520T, there are a few differences. Click the icon to the right to view the differences.



- **The most affordable 6" color TFT touchscreen OIT on the market - just \$599!**

Our 6" touchscreen may be inexpensive, but that doesn't mean we compromised on features. With a 256-color bright TFT display, 4-wire analog resistive touchscreen and 2 MB Flash PROM, the HMI520T can do everything our other models do with the same power and speed.

- **Seamless connectivity**

We've made it easy to connect the HMI520T in any way you might need. The HMI520T can be connected in a daisy-chain HMI to HMI format. And with seamless support for more than 80 controller families from industry-leading manufacturers, as well as the Modbus RTU protocol, our HMI520T can be connected to the controllers you use.

- **Colorful graphics**

The 256-color display allows you to create bright, eye-catching graphics. Import colorful bitmaps with 256-color images and scale them to the size you want. Available transparent coloring allows you to layer objects for more interesting and informative displays.

- **No fixed touch cells**

With 4-wire, analog resistive technology you can create or import fully scalable graphics that can be sized down to the pixel. Place objects anywhere on the screen without being limited to touch-cell placement. Our technology allows you to create the screens you want exactly the way you want them.

- **Space for all the screens you need**

2 MB Flash PROM enables up to 1999 screens for even the most complex applications and quick graphics response.

- **Pop-up windows expand screen capacity**

Like the price, but not so sure 6" is enough space? Use pop-up windows to expand the capacity of your screens. Place graphs, input devices and meters in pop-up windows you can open and close with a touch. Up to six pop-up windows can be open at a time.

- **UL listed in US & Canada**

All of our Silver Series are now UL listed in US & Canada -- meeting stringent safety requirements in both countries.

- **Easy events logging and trend tracking**

4 MB of operating RAM comes standard with the HMI520T, giving you the memory you need for historical event logging and trending, as well as complex applications and better, faster graphics.

- **High performance at your fingertips**

Stack unlimited touch objects on top of one another to perform multiple functions with a single touch.

- **Instantaneous feedback**

A high-speed, 200 MHz processor give your operators the information they need when they need it. If you want data in real time, the HMI520T will do the job. There are no delays and no waiting for screen updates - just the information you need in real-time.

- **Total freedom of design**

You'll be amazed at what you can design on the HMI520T. Select from more than 500 predefined graphics, design your own with our drawing tools, or import them from other programs. Since you're not limited to touch cells, you can fully size your graphics and place them anywhere you want on the screen. And all of it can be done right on your PC using our Windows-based EZware-500 configuration software.

- **Programming features give you PC-like control**

Perform easy, one-touch uploads and downloads of large amounts of information with the recipe feature. The HMI520T can also be configured to perform simple arithmetic functions, and a macro language allows you to program the HMI to execute scripts.

- **Fits where you want it**

With a sleek 2" profile, a compact 6" display and the ability to be mounted in either portrait or landscape orientation, the HMI520T fits exactly where you need it, giving you more flexibility when you design your system.

- **Speaks your language**

Need the HMI to speak a different language? No problem! With the multi-language feature, you can program the HMI to be configured to switch between up to five different languages at the touch of an object.

***Power, performance and versatility that meet your needs - and your budget!***

## **Product Specifications (HMI520T)**



## Hardware Specifications

### Display

**Model Part Number** - HMI520T

**Type** - 256-color TFT

**Size (Angle)** - 5.6 inches [143 mm]

**Size (W x H)** - 4.5 x 3.4 inches [114 x 86.5 mm]

**Resolution** - 320 x 234 pixels

**Brightness** - 500 cd/m<sup>2</sup>

**Contrast** - 150:1

**Backlight** - CCFL with 50,000 hour minimum life span

### Touchscreen

**Type** - 4-wire analog resistive

**Touch Accuracy** - 0.08 inches [2 mm]

**Surface Hardness** - 4H

### Hardware

**Microprocessor** - 200 MHz Intel XScale

**Flash Memory** - 2 MB

**DRAM** - 4 MB

**Non-volatile Recipe RAM** - 128 K

**Real-Time Clock Chip** - standard  
**Flash Card** - available for configuring the HMI

## Physical Dimensions

**Height** - 5.9 inches [150 mm]  
**Width** - 8.0 inches [204 mm]  
**Total Depth** - 2.0 inches [51 mm]

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## Mechanical

**Material** - plastic PBT + PC  
**Mounting** - panel  
**Wiring** - field-wired to external terminal strip for power and D-style communication connectors  
**Weight** - 2.2 pounds [1 kg]

## Environment

**Ratings**- IP65, NEMA 4  
**Operating Temperature** - 32 to 113° F [0 to 45° C]  
**Storage Temperature** - -4 to 140° F [-20 to 60° C]  
**Relative Humidity** - 10% to 90% (non-condensing)  
**Voltage Resistance** - 500VAC (1 minute)  
**Isolation Resistance** - exceed 50Mohms at 500VDC  
**Vibration Endurance** - 10 to 25 Hz (x,y,z direction; 2G; 30 minutes)

## Certifications

 Complies with EN50081-2 (1993) & EN50082-2 (1995)

 cUL certified; UL listed

## Power Requirements

**Input Voltage** - 24 VDC  
**Current Requirements** - 740 mA instantaneous, 370 mA steady state

## Communication

**Serial Port 1 (OIT Configuration & RS-485 Communications)** - RS-232 or RS-485 (DE9P)

**Serial Port 2 (RS-232 Communications)** - RS-232 (DE9S)

**Baud Rates** - 115.2K, 57.6K, 38.4K, 19.2K, 9600

**Type** - point-to-point

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## Operating Specifications

### Screens & Pop-up Windows

- Up to 1999 user-definable screens (full size) or pop-up windows (partial size)
- Up to 6 pop-up windows can be displayed at one time
- Pop-up windows can overlap
- Pop-up windows can be minimized to the task bar or moved by the operator
- User-definable startup screen
- User-definable common window for displaying objects that should always be shown
- Fast selection window for quick access to screens
- Change screens or call pop-up windows using PLC registers or function keys

### Touchable Objects

- Can be any size
- Place any number of objects in a screen or pop-up window
- Locate objects anywhere in a screen or pop-up window
- Can be layered on top of one-another to perform multiple functions with a single touch

### Graphic Objects

- Drawing tools for lines, rectangles, circles, arcs and polygons
- 256-colors available
- Overlay existing graphics to create complex graphics
- Create two-state graphics to represent PLC coils
- Create multi-state graphics to represent PLC registers
- Use transparent colorings to overlay graphics on charts & graphs

### Graphic Libraries

- Includes over 500 of the most common symbols
- Store new graphics in the libraries
- Use the same libraries in multiple projects
- Import preexisting bitmaps (up to 256 colors)

## **Text**

- Eight font sizes
- Display in 256-colors
- International characters available
- Character set can be modified to include special characters of your creation

## **Function Keys**

- Display a new or previous screen
- Display or close a pop-up window
- Display a message board
- Edit a PLC register using numbers or ASCII characters

## **Bar Graphs**

- Display with or without a background shape
- Define the direction - up, down, left, right
- Constant or variable hi/lo alarm limits
- Adjustable color, size, span and zero reference
- Unlimited number of bar graphs per screen

## **Meters**

- Four formats - up half, full up, full bottom,  $\frac{3}{4}$  full
- Adjustable color, size, span and zero reference
- Unlimited number of meters per screen

## **Trends**

- Periodically retrieve data from up to 16 PLC registers
- Vary sampling time from 1 to 65,535 seconds

- Hold feature for pausing the sampling
- Single or multiple page display
- Adjustable color and size

## Alarms

- Monitor an unlimited number of PLC registers and coils
- On-screen alarm indicator
- Horizontal scrolling bar scrolls through all active alarms
- Alarm list displays all active alarms

## Events

- Monitor PLC coils or registers for "events"
- Display screens or pop-up windows on an event trigger (the screens can be configured to set PLC coils)
- Acknowledge and "return to normal" capabilities

## PLC Register Control

- Decimal, hex, binary, or floating point representation
- Linear scaling to present analog or digital data in readily understandable terms (i.e., degrees, speed)
- Jogging capability - incremental or time rated
- Use single or multi-state graphics to represent
- Masked format for password protection

## Programming Features

- Multiple language labeling
- Macro scripting language
- Arithmetic operation

## Other Features

- Tag database
- Animated object movement using multi-state graphic objects tied to a PLC register
- On-line simulation mode for quick debugging
- Multiple OITs easily connected to one PLC



- Message board for writing messages
- Backlight screen saver
- Recipe feature
- Real-time clock
- Two-year warranty