



## Introduction

The MMI8100 is a compact HMI platform. It offers a fast 400 MHz, 32-Bit RISC CPU, expanded memory and a bright, wide screen 10" display with high resolution. The MMI8100 delivers impressive performance at low power. A hardware graphics acceleration engine gives superior 65K color graphics performance. This leaves more time for Data management.

The MMI8100 has features for Data logging and SD Card or USB Stick type memory storage. Data information can also be accessed by SCADA/HMI software running on remote PC's via Ethernet. MMI to MMI communications are easily done through Ethernet. With its many features the MMI8100 is the sensible choice for present and future Operator Interface applications.

# MMI8100

**10" TFT LCD Widescreen  
800 x 480 Pixel Resolution  
32-Bit RISC CPU 400 MHz**

- Bright 10" TFT 65,536 (16-Bit) Color Display
- 800 x 480 Pixel Resolution
- NEMA4/IP65 Compliant Front Panel
- Built In Ethernet Port
- 2 USB Ports
- 3 RS232 and 2 RS485 ports
- SD Card Slot
- Supports Multiple PLC Types to one MMI
- Data Logging to USB, SD Card
- True Type Font Capability
- Alarm and Alarm History (Events) Tracking
- Real time and Historical Trending
- Multiple Language Support (up to 7 languages)
- Simple scripting for Advanced Users (Macro)
- Free Design Mode, Windows™ Based Setup Software Included



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## Integration Guide

### Supported Peripherals



# MMI8100 10.4" Color Graphic Display Panel and Touch Screen

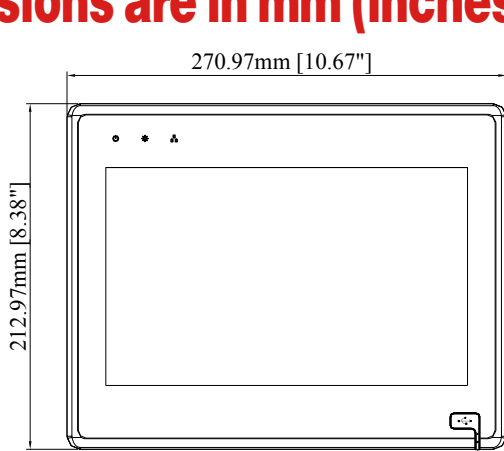
| Hardware Specifications |  |
|-------------------------|--|
| Display                 | 10" TFT Widescreen   |
| Resolution              | 800 x 480  |
| Viewing Angle (°)       | 45/65/65/65(T/B/R/L)   |
| Brightness              | 350 cd/m <sup>2</sup>  |
| Color                   | 65,536 colors  |
| Contrast Ratio          | 300:1  |
| Back light              | LED  |
| Back light life time    | 30,000 hr. min.  |
| Touch panel             | 4 wire, analog resistive   |
| Touch Accuracy          | Active Area Length(X) ±2%, Width(Y) ±2%                            |
| Surface Hardness        | 4H   |
| Ethernet port           | (10/100 Base-T)  |
| I/O port                | COM1 (RS-232/RS-485 2W/4W)<br>COM2(RS232)<br>COM3(RS-232/RS-4852W) |
| USB                     | 1 USB Host port; 1 USB Client port                                 |
| CPU & Core Logic        | 32-Bit RISC 400MHz processor                                       |
| Storage                 | 128MB flash memory on board  |
| DRAM                    | 64MB DDR2 on board   |
| SD card slot            | Supports SDHC/SD, MT8000 doesn't support Plug & Play               |
| RTC                     | Built-in   |

| General Specifications |   |
|------------------------|---|
| Input Power            | 24 ±10% VDC (21.6~26.4VDC)<br>(Power Isolator Inside) |
| Power Consumption      | 300mA @ 24VDC   |
| CE                     | Complies with EN50081-2 and EN50082-2 standards       |
| FCC                    | Complies with FCC Class A                             |
| Voltage resistance     | 500VAC (1 min.)                                       |
| Isolation resistance   | Exceed 50M at 500VDC                                  |
| Vibration endurance    | 10 to 25 Hz<br>(X,Y,Z direction 2G 30minutes)         |
| Protection structure   | IP65 front panel (O ring seal)                        |
| Operating Temperature  | 0~45°C  |
| Operation humidity     | 10-90% RH (non-condense)                              |
| Enclosure              | Plastic   |
| Dimensions WxHxD       | 271 x 212 x 50 mm                                     |
| Panel cutout dimension | 259 x 201 mm  |
| Weight                 | Approx. 1.4 kg  |
| Operating System       | EB8000 V2.0.0 or Newer                                |

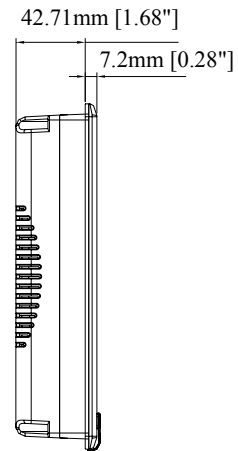
| EasyBuilder Software Specification |  |
|------------------------------------|--|
| Screen editor                      | EasyBuilder Ver. EB8000 2.0.0 or later<br>(requires Windows 2000, XP)  |
| No. of window                      | Up to 1989 Windows   |
| No. of object                      | Up to 500 per window, limited by memory  |
| Text strings                       | limited only by memory   |
| Graphics                           | Supports BMP, GIF and JPG  |
| PLC Support                        | Most popular PLC's   |
| Macro Scripts                      | Easy to use macro scripting language   |
| System Requirements                | Computer requirements include at least a Pentium 90Mhz PC, 16MB RAM, 10MB available hard disk space, minimum 800x600 resolution VGA, and one available RS-232 serial port.   |
| EB8000 Setup and Features          | <p>EasyBuilder has a complete set of drawing tools as well as the ability to import and place bitmaps. Summary of EasyBuilder Objects</p> <p><b>Bit Lamp</b> – Place an indicator that is bit triggered</p> <p><b>Word Lamp</b> – Place an indicator that is word triggered</p> <p><b>Set Bit</b> – Set a bit on a button press, button hold, window change, backlight activation or data entry.</p> <p><b>Set Word</b> – Set a word on a button press, button hold, window change, backlight activation or data entry.</p> <p><b>Toggle Switch</b> – Toggle a bit</p> <p><b>MultiState Switch</b> – Increment/Decrement a word</p> <p><b>Slider</b> – Change word value by dragging cursor</p> <p><b>Function Button</b> – Perform a system operation</p> <p><b>Numeric Input / Display</b> – Change/Display digital data</p> <p><b>ASCII Input / Display</b> – Change/Display alphanumeric data</p> <p><b>X,Y Move Animation</b> – Move an object via pixel coordinates</p> <p><b>Spot Move Animation</b> – Move an object on a predefined path</p> <p><b>Direct Window</b> – Popup Window on Bit status change</p> <p><b>Indirect Window</b> – Popup Window depending on Word's value</p> <p><b>Bargraph</b> – Display data as changing rectangle</p> <p><b>Alarm Display</b> – display predefined text strings in response to bit changes</p> <p><b>Trend Graph</b> – Plots active data on a trend</p> <p><b>Data History Display</b> – Show contents of Data Logger</p> <p><b>Meter</b> – Display one of 4 different types of meters</p> <p><b>Scrolling Alarm</b> – display predefined text strings in response to bit changes</p> <p><b>Event Display</b> – display and log predefined text strings in response to bit or word changes</p> <p><b>Data Logging</b> – Move PLC data to USB or CF Card memory</p> <p><b>PLC Controls:</b> Change window, Backlight control, Macro Execution, Data Transfer</p> |

## Installation Guide

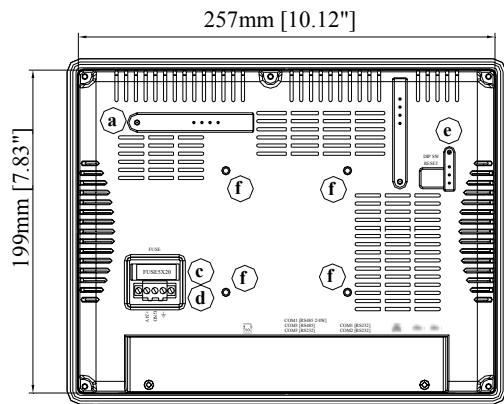
**Dimensions are in mm (inches)**



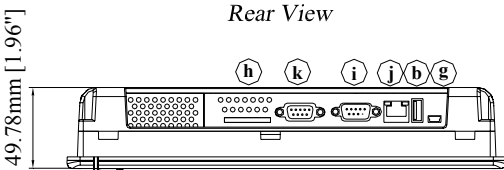
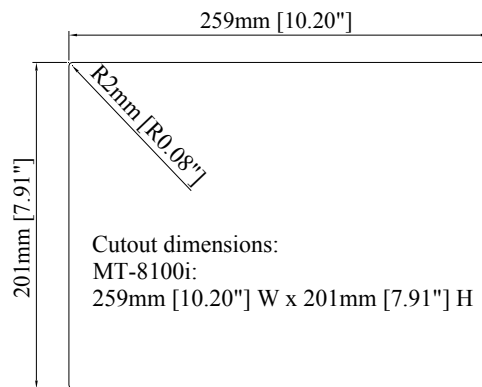
Front View



Side View



Rear View



Bottom View

1. The "b" USB Host port can be connected alternatively from the USB port on the front panel.

|   |                       |   |                                    |
|---|-----------------------|---|------------------------------------|
| a | N/A                   | f | VESA 75mm screw holes              |
| b | USB Host port *1      | g | USB Device port                    |
| c | Fuse                  | h | SD card slot                       |
| d | Power connector       | l | Com1 RS232, Com2 RS232             |
| e | DIP SW & Reset button | j | Ethernet port (RJ-45)              |
|   |                       | k | Com1 RS485, Com3 RS485, Com3 RS232 |



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### Ordering Information

| Part Number | Description  |
|-------------|--|
| MMI8100     | Graphic Interface with 10" Widescreen Color LCD display and Touchscreen.<br><br>Setup software and Ethernet Crossover cable for programming included |