

## HMI Touch Screens

The SMLC interfaces with ORMEC's series of flat panel touch screens. Five options are available which have diagonal screen sizes of 4.3", 7.0", 10.4", 12.1" and 15". These screens are color TFT LCD displays utilizing fast processors for the display of vivid images and complicated animations. The switching of windows is smooth without delay.

These easy-to-use graphical operator displays can be used for:

- Machine setup
- maintenance
- product run changes
- recipe management
- operational status
- operational control
- fault conditions
- alarm monitoring
- trending

Operator control can be built into the HMI representing a conventional factory operator panel, without additional bulky hardware, I/O modules and wiring.

Each individual display can be designed and built quickly using the "drag and drop" graphical objects found in the EasyBuilder Pro application development utility.

The HMI panels have on-board non-volatile memory and an optional flash memory card. These are used for storage and retrieval of both machine set-up parameters and product recipes.

Each HMI unit is shipped with EasyBuilder Pro development software. The latest version of the EasyBuilder Pro software is also available for download from the ORMEC web site, [www.ormec.com](http://www.ormec.com).

The HMI also has a powerful macro capability allowing for the development of advanced applications. The macros can be saved to a library for use with future projects, shortening the time of project development.



ORMEC's touch screen operator interfaces provide a fully graphical, easy-to-use human-machine interface.

### Operation

Communication with an ORMEC SMLC is through Ethernet using Modbus/TCP.

Screen objects are assigned to input and output registers that are mapped variables in the application program running on the controller. They can also be used to set values for motion parameters, commanding motions, jogging the motor, homing the motor, turning on drive outputs, clearing fault conditions, and more.

### Mounting & Sealing

HMI Units are cabinet mounted, and feature a gasket and four or six mounting brackets to maintain a NEMA 4 rating.

### CE Mark

All units are CE Marked, indicating compliance with European directives EN 55081-2 and EN50082-2.

#### Ordering Guide

##### Operator Interface Terminals

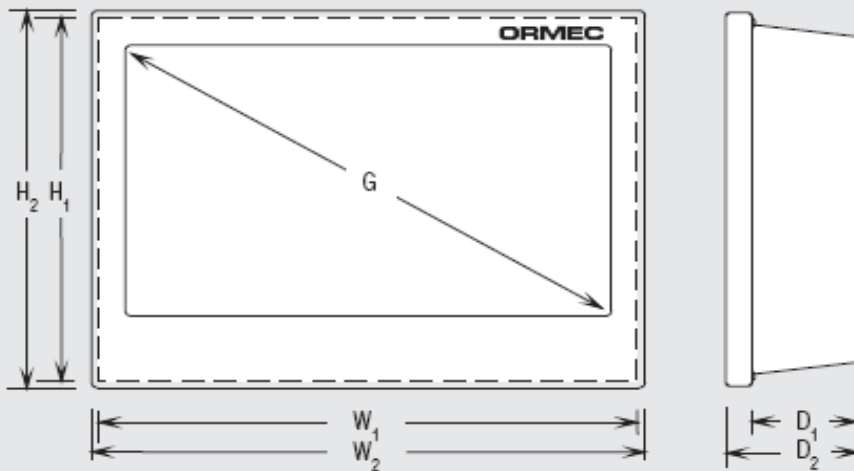
MMI-MT8050iE	4.3" diagonal, 480w x 272h pixels, TFT Color, Ethernet
MMI-MT8070iE	7.0" diagonal, 800w x 480h pixels, TFT Color, Ethernet
MMI-MT8100iE	10.0" diagonal, 800w x 480h pixels, TFT Color, Ethernet
MMI-MT8121xE	12.1" diagonal, 1024w x 768h pixels, TFT Color, Ethernet
MMI-MT8150xE	15.0" diagonal, 1024w x 768h pixels, TFT Color, Ethernet
MMI-eMT3070A	7.0" diagonal, 800w x 480h pixels, TFT Color, Ethernet
MMI-eMT3105P	10.4" diagonal, 800w x 600h pixels, TFT Color, Ethernet
MMI-eMT3120A	12.1" diagonal, 1024w x 768h pixels, TFT Color, Ethernet
MMI-eMT3150A	15.0" diagonal, 1024w x 768h pixels, TFT Color, Ethernet

Each Operator Interface unit includes EasyBuilder Pro development software and mounting clamps.

##### Ethernet Cables and Accessories

CBL-SMLC-MMI8/X	Serial Cable, SMLC to MMI, RS-232, x ft.
EISK5-100T	Ethernet Switch, 100BASET, 5 port, 24 VDC input, DIN rail mount
CBL-ENET/x	Cable, Ethernet, RJ45, 3,7,10,25,50,75, & 100 ft
CBL-ENETX/x	Cable, Ethernet, crossover, RJ45, 3,7,10 & 25 ft

## Cabinet Mounted Unit Dimensions



Dimension	MT-8050iE	MT-8070iE	MT-8100iE	MT-8121xE	MT-8150xE	eMT3070	eMT3105	eMT3120	eMT3150	
<b>Mounting &amp; Cutout</b>	<b>G</b>	4.3" 109 mm	7.0" 178 mm	10.0" 254 mm	12.1" 305 mm	15" 381 mm	7.0" 178 mm	10.4" 264 mm	12.1" 305 mm	15" 381 mm
	<b>H1</b>	3.60" 91 mm	5.34" 136 mm	7.90" 201 mm	9.0" 229 mm	10.91" 277 mm	5.34" 136 mm	7.83" 199 mm	9.0" 229 mm	10.91" 277 mm
	<b>W1</b>	4.63" 117 mm	7.46" 190 mm	10.2" 259 mm	11.93" 305 mm	13.78" 350 mm	7.48" 190 mm	10.1" 257 mm	11.93" 305 mm	13.78" 350 mm
	<b>D1*</b>	1.27" 32 mm	1.05" 27 mm	1.28" 33 mm	1.54" 39 mm	2.13" 54 mm	1.40" 36 mm	1.68" 43 mm	1.54" 39 mm	2.13" 54 mm
<b>Overall</b>	<b>H2</b>	4.02" 102 mm	5.76" 146 mm	8.38" 213 mm	9.61" 244 mm	11.54" 293 mm	5.76" 146 mm	8.38" 213 mm	9.61" 244 mm	11.54" 293 mm
	<b>W2</b>	5.04" 128 mm	7.89" 200 mm	10.18" 259 mm	12.49" 317 mm	14.41" 366 mm	7.89" 200 mm	11.27" 286 mm	12.49" 317 mm	14.41" 366 mm
	<b>D2</b>	1.51" 38 mm	1.34" 34 mm	1.58" 40 mm	1.82" 46 mm	2.24" 57 mm	1.68" 43 mm	1.96" 50 mm	1.82" 46 mm	2.24" 57 mm

### Touch panel type

Resistive

### Color Type

TFT 65536 color

### Installation

All sizes

Cabinet mount

### Vibration

10 to 25Hz 2Gs on each  
x,y,z plane for 30 min.

### Temperature

Operating 0C to 45C

Storage -10C to 60C

### Relative Humidity

Operating 10% to 90% non-condensing

Storage 5% to 85% non-condensing

### Enclosure Ratings

NEMA 4 front panel (O-ring seals).

### EMI

Complies with FCC Class A

### Display Resolution

### Weight

### Input Power

### Ratings

### Certifications

MMI-MT8050iE	480w x 272h	0.3kg	250mA @ 24VDC	IP65	CE
MMI-MT8070iE	800w x 480h	0.6kg	350mA @ 24VDC	IP65	CE, UL508
MMI-MT8100iE	800w x 480h	1.3kg	400mA @ 24VDC	IP65	CE, UL508
MMI-MT8121xE	1024w x 768h	2.1kg	800mA @ 24VDC	IP66	CE
MMI-MT8150xE	1024w x 768h	2.75kg	1000mA @ 24VDC	IP65	CE
MMI-eMT3070	800w x 480h	0.9kg	400mA @ 24VDC	IP66	CE
MMI-eMT3105	800w x 600h	1.6kg	800mA @ 24VDC	IP65	CE
MMI-eMT3120	1024w x 768h	2.1kg	850mA @ 24VDC	IP66	CE
MMI-eMT3150	1024w x 768h	2.75kg	900mA @ 24VDC	IP66	CE