ORMEC
Productivity in Motion

MMI-8000 Series Touch Screens

The SMLC interfaces with ORMEC's MMI-8000 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.

Displays present machine functions such as:

- setup
- maintenance
- product run changes
- operational status
- operational control
- fault conditions

These easy-to-use graphical operator displays provide alerts for machine alarms and status conditions

Operator control can be built into the MMI-8000 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 8000 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 MMI-8000 unit is shipped with EasyBuilder 8000 development software. The latest version of the EasyBuilder 8000 software is available for download from the ORMEC web site, www.ormec.com

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 to input and output variables in the application program running on the controller. They can also be used to set values for motion parameters, triggering motions from the motion table, jogging the motor, homing the motor, turning on drive outputs, clearing fault conditions, and more.

Ordering Guide

Operator Interface Terminals

MMI-8050*	4.3" diagonal, 480w x 272h pixels, TFT Color, Ethernet
MMI-8070*	7.0" diagonal, 800w x 480h pixels, TFT Color, Ethernet
MMI-8100*	10.4" diagonal, 800w x 480h pixels, TFT Color, Ethernet
MMI-8121	12.1" diagonal, 800w x 600h pixels, TFT Color, Ethernet
MMI-8150	15.0" diagonal, 1024w x 768h pixels, TFT Color, Ethernet

Each Operator Interface unit includes EasyBuilder 8000 development software and Ethernet crossover cable.

* 16 x 9 wide screen format.

Ethernet Cables and Accessories

CBL-SMLC-MMI8/X	Serial Cable, SMLC to MMI-8000, 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

Development Software

EasyBuilder 8000 included and downloadable.

Graphical Panel Objects

❒ Pilot Light (Bit Lamp)
❒ Word Lamp
❒ Force Coil (Set Bit)
❒ Write Register (Set Word)
❒ Toggle Switch
❒ Multi-State Switch
❒ Function Key
❒ Numeric Input
❒ Numeric Display
❒ ASCII Data
❒ ASCII Display
❒ Moving Shape
❒ Animation
❒ Indirect Window
❒ Direct Window
❒ Alarm Display
❒ Trend Display
❒ XY Plot
❒ Bar Graph
❒ Meter Display
❒ Alarm Bar
❒ Recipe Upload/Download
❒ Event Display

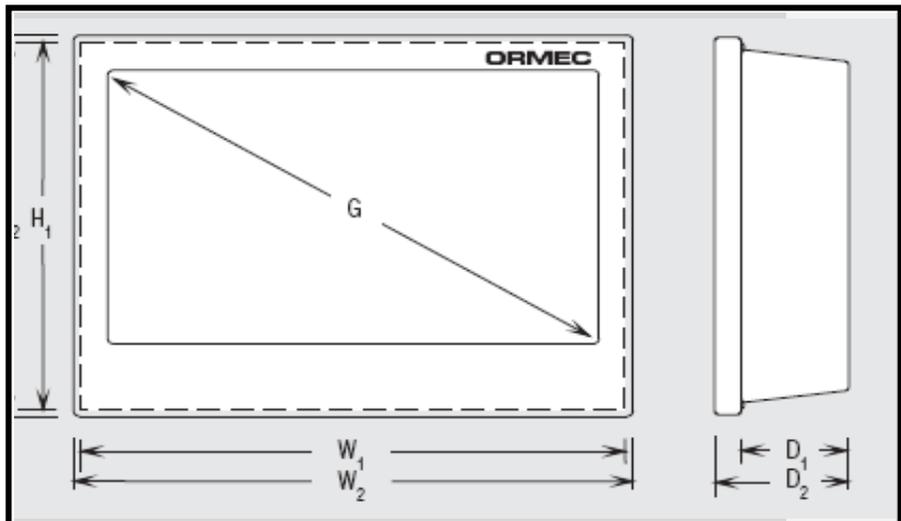| Dimension	8050	8070	8100	8121	8150
G	4.3"	7.0"	10.4"	12.1"	15"
	109 mm	178 mm	264 mm	307 mm	381 mm
H1	3.66"	5.43"	7.91"	9.09"	10.98"
	93 mm	138 mm	201 mm	231 mm	279 mm
W1	4.69"	7.56"	10.2"	12.01"	13.86"
	119 mm	192 mm	259 mm	305 mm	352 mm
D1	1.27"	1.4"	1.68"	1.81"	2.13"
	32 mm	36 mm	43 mm	46 mm	54 mm
H2	4.02"	5.76"	8.38"	9.57"	11.54"
	102 mm	146 mm	213 mm	243 mm	293 mm
W2	5.04"	7.89"	10.67"	12.68"	14.41"
	128 mm	200 mm	271 mm	322 mm	366 mm
D2	1.51"	1.68"	1.96"	2.01"	2.32"

LED Indicators

Each MMI-8000 unit has three status indicator LEDs to assist with installation and troubleshooting.

PWR - Indicates the unit has power.

CPU - Indicates that the processor is operating properly.

COM - Flashes during Ethernet communications.

Mounting & Sealing

MMI-8000 units are cabinet mounted, and feature a gasket and four or six mounting brackets to maintain a NEMA 4 rating.

CE Mark

All MMI-8000 units are CE Marked, indicating compliance with European Union directives EN 55081-2 and EN50082-2.

General Specifications

Touch panel type	Resistive	**Temperature**		**Weight**	
Color Type	TFT 65536 color	*Operating*	0C to 45C	*MMI-8050*	.66 lbs (0.3 kg)
Display Resolution		*Storage*	-10C to 60C	*MMI-8070*	1.9 lbs (0.85 kg)
MMI-8050	480w x 272h pixels	**Relative Humidity**		*MMI-8100*	3.3 lbs (1.5 kg)
MMI-8070	800w x 480h pixels	*Operating*	10% to 90% non-condensing	*MMI-8121*	4.6 lbs (2.1 kg)
MMI-8100	800w x 480h pixels	*Storage*	5% to 85% non-condensing	*MMI-8150*	6.5 lbs (2.9 kg)
MMI-8121	800w x 600h pixels	**Enclosure Ratings**		**Input Power**	24 Volt DC +/- 5%
MMI-8150	1024w x 768h pixels	*NEMA 4/IP65 front panel (O-ring seals).*		*MMI-8050*	250 mA
Installation		**EMI**		*MMI-8070*	250 mA
All sizes	Cabinet mount	*Complies with FCC Class A*		*MMI-8100*	300 mA
Vibration	10 to 25Hz 2Gs on each	**CE**		*MMI-8121*	800 mA
	x,y,z plane for 30 min.	Complies with EN50081-2 and EN50082-2		*MMI-8150*	1.6 A

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