

# EATON HMI/ Touch Panels

## EATON

Cutler-Hammer

CONTROL  
ENGINEERING



2006

ENGINEERS'  
CHOICE  
AWARDS

from  
**\$281**



## Robust. Flexible. HMI changes the way you interface.

Today's marketplace is all about how you interface—with customers, suppliers and your machinery. FactoryMation proudly offers a new and easy way to interface, HMI. Available in 4", 6", 8" and 10" models, HMI is a true analog touchscreen operator interface with programmable function buttons for the most robust applications. With the ability to store recipes, historical and alarm data, or transfer that data to a USB memory stick, using HMI makes interfacing with your machinery easier than ever.

### Easy Configuration. Seamless Integration.

HMI simplifies configuring application parameters with features and software that provide added capabilities and make monitoring your system intuitive. Eaton's goal is to make the pieces of your process interface seamlessly.

### Complete Project Storage

HMI stores your entire application, including images, so editing won't require original source files. If your computer fails or years from now you need to edit the application, there's no need to track down old original source files. HMI is the source. Flexibility, plus the security of password protection, makes HMI the perfect operator interface for any user.

### All sizes, all features



All HMI touch panels feature true analog touch screen technology, along with built-in programmable function buttons starting at \$281 in 4-, 6-, 8-, and 10-inch models. All HMI products include 3 serial communication ports for simultaneous multiple PLC protocol connectivity, USB program upload/download port, real-time clock calendar, and support for over 20 different PLC/controller drivers. Additional features include USB data logging and USB printer support, battery backed SRAM retentive memory, security for system setup and program password protection.

### Do More with Macros

Its easy-to-use macro ability, with the strength to handle even the most complicated applications, allows HMI to help you manage your machine more efficiently than ever. From simple math, storing and manipulating trends, data, and communications, to sending data from one PLC to another, macros make HMI the easiest interface on the market.

### HMI Hardware/System Features:

- Best price-performance touch panel from 4" to 10" starting at \$281
- True analog touchscreen with no grid restrictions
- 3 Communication ports on all models, RS232/485/422
- Communicate to two or three different protocol PLCs from one touch panel
- Over 20 different PLC/Controller drivers supported
- Standard USB-B programming Upload/Download port
- USB-A historical data logging (4, 8, and 10" models)
- USB-A printer support
- Built-in configurable function keys on all models
- Battery backed SRAM retentive memory storage
- Advanced security for system setup and 10-level program password protection
- Built-in real time clock/calendar on all models
- Online and offline simulation and editing
- Real time trending
- Trend stored data
- Alarming and alarm storage
- Alarm frequency
- Event storage (History)
- Macro programming
- Multi-language
- Recipe storage
- Auto-scale application from 4" to 10" or 10" to 4"
- 2 year Warranty

### Expansion I/O:

- Add I/O to 6", 8", or 10" HMI for direct control without an ELC, starting at \$154

### FREE Software Download

Fully functional programming software. No demo time-outs. Registered users can download at [www.factorymation.com](http://www.factorymation.com).

To order call **1.800.972.0436** or visit [factorymation.com](http://factorymation.com)

No Games, No Gimmicks...

...Just Great Products at Great Prices!!!

## EATON HMI Touch Panels



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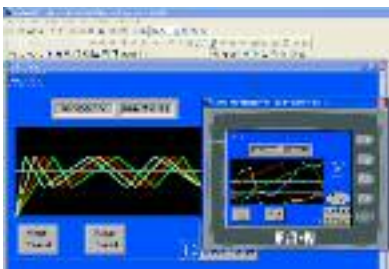
## HMI Soft: Eaton Operator Interface Programming S/W

HMI Soft programming software makes touch panel project development simple and fast. Easy-to-use Windows-based tools and menu guide the user through developing a project. Extensive debugging and simulation features test and correct any errors without connecting hardware.

### Online and Offline Simulation

HMI Soft includes a powerful simulation feature that includes the capability for both offline and online simulation.

#### Offline Simulation View



**Offline simulation** allows the user to simulate object functions without requiring connected hardware. The majority of project debugging can be accomplished even during offline development.

#### Online Simulation View



**Online simulation** and editing with connected hardware allows the user to control screens from HMI Soft. All screen objects can be activated using your mouse.

Part #	Description	Price
HMI04BU	4-inch Blue Mode Monochrome, 8 shades of blue, 4 built-in function keys, 24VDC input power	\$281
HMI06BE	6-inch Blue Mode Monochrome, 16 shades of blue, 4 built-in function keys, 24VDC input power	\$387
HMI06GE	6-inch Gray Scale Monochrome, 16 shades of gray, 4 built-in function keys, 24VDC input power	\$419
HMI06CE	6-inch STN Color, 256 colors, 4 built-in function keys, 24VDC input power	\$631
HMI08CE	8-inch TFT Color, 65536 colors, 6 built-in function keys, 24VDC input power	\$1055
HMI10CE	10-inch TFT Color, 65536 colors, 7 built-in function keys, 24VDC input power	\$1,691
HMIECENT	Ethernet Expansion Module adds 10/100 MB Modbus TCP ability (6", 8" or 10" HMI units)	\$95
HMIEC0806	I/O Expansion Module providing 8 DC inputs and 6 relay outputs	\$154
HMIEC1612	I/O Expansion Module providing 16 DC inputs and 12 relay outputs	\$250
HMISOFT	Programming Software CD and User Manual, Windows 2K/XP	\$32
FM-USBAB-10	Hi-Speed USB 2.0 Certified A to B cable, 10' (for programming EATON HMI)	\$10
ELC-CBPCELC1	ELC-GP to HMI communication cable, 9-pin D-sub connector to 8-pin mini din, 1 meter (same as ELC programming cable)	\$19
ELC-CBPCELC3	ELC-GP to HMI communication cable, 9-pin D-sub connector to 8-pin mini din, 3 meters (same as ELC programming cable)	\$22

### Powerful Multi-state Objects

- Up to 255 states for a single object
- Reduces the need to duplicate screens
- Develop standard object and just add states for more functions
- Great solution for repeat status displays to include on each screen



### One-Click Bitmap Scaling

HMI Soft has a unique feature for resizing bitmaps automatically within your program. No need to pre-size your bitmap images in another graphics software package.



### Built-in Macro Language

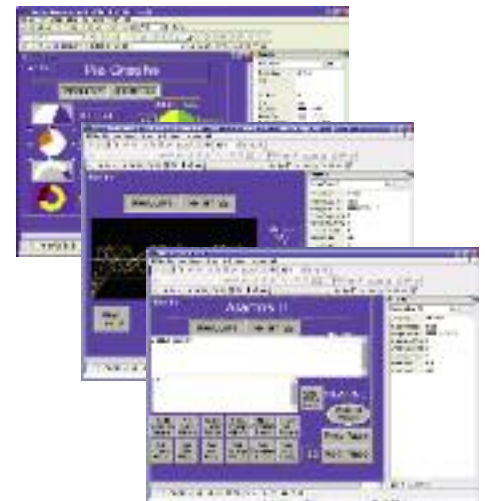
HMI Soft includes a complete Macro Script editor for developing custom functions without any 3rd party software required.

- Simple If-Then-Else BASIC-type macro language with complete commenting and syntax check features
- Easy point-click-select command library
- Create global Background macros or individual object, or screen specific macros
- Complete access to all PLC variables using the same tools as standard screen objects
- Great feature for passing data between multiple PLCs from different vendors, eliminating the need for expensive hardware protocol converters or PLC Co-Processor modules



### Trending, Alarming, Logging, Recipes and more..

HMI Soft includes advanced features often only found in more expensive PC-Based SCADA/HMI packages. Trending, Alarming, Data logging, Recipes, multiple language configuration and much more are all included in HMI Soft. These features can often eliminate the need for adding a dedicated PC with custom software to your control system.



**FREE Ground Shipping!**\*  
for online orders over \$500

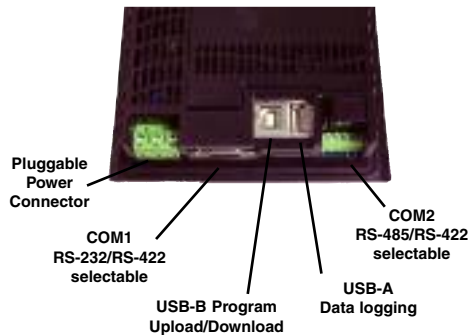


## Connect to almost anything

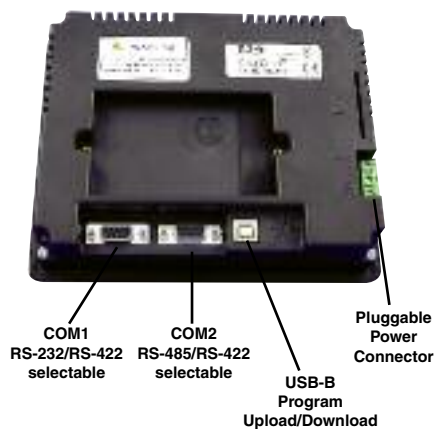
The Eaton HMI includes multiple connection ports across all models for easy communication, programming and data logging. No need to upgrade to a larger screen size just for more ports when they're included on even the smallest 4" model.

- 3 serial ports can be used simultaneously for RS232/485/422 connections to multiple PLCs
- USB-B port for fast and easy program upload/download
- Removable data logging USB-A (4, 8, and 10" models)
- External printer USB-A connection

### 4 inch Panel



### 6 inch Panel



### 8 and 10 inch Panel



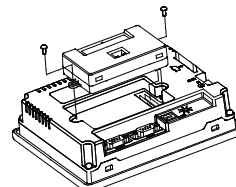
## Expansion Modules (for 6", 8", 10")

Add Ethernet Modbus connectivity or add I/O to create a stand-alone HMI controller.

- 10/100 MB Modbus TCP
- I/O Expansion Module 14 I/O or 28 I/O



HMIEC1612



Installing the Expansion Cards

## General Specifications

Model	HMI04BU	HMI06BE	HMI06GE	HMI06CE	HMI08CE	HMI10CE
Input Power	24 VDC (20.4VDC~28.8VDC) (-15% to +20%)					
Current Consumption	110mA Max	320mA Max	300mA Max	300mA Max	420mA Max	625mA Max
CPU	32-bit RISC Micro-controller / 206.4 MHz					
NOR Flash ROM	NOR Flash ROM 2 MB (System: 1 MB / User: 1 MB)	NOR Flash ROM 4 MB (System: 1 MB / User: 3 MB)		NOR Flash ROM 8 MB (System: 1 MB / User: 7 MB)		
SDRAM	4 MB	16 MB	16 MB	16 MB	32 MB	32 MB
Non-volatile Retentive Memory	128K	512K	512K	512K	512K	512K
USB-B Interface for Upload/Download	✓	✓	✓	✓	✓	✓
USB-A Interface for Data Logging/Printer	✓				✓	✓
Expansion Slot	-	✓	✓	✓	✓	✓
LCD Module	3.8" STN LCD (8 Shades of Blue)	5.7" STN LCD (16 Shades of Blue)	5.7" FSTN LCD (16 Shades of Gray)	5.7" STN LCD (256 Colors)	8" TFT LCD (65536 Colors)	10.4" TFT LCD (65536 Colors)
Resolution	320 x 240	320 x 240	320 x 240 pixels	320 x 240	640 x 480	640 x 480
Backlight	LED	CCFL	CCFL	CCFL	CCFL	2CCFL
Function Key	User Defined Key x 4				User Defined Key x 6	User Defined Key x 7
Real Time Clock/Calendar (RTC)	Built-In					
Backup Battery	3V Lithium Battery CR2032 x 1 / Battery Life: 5 Years					
Buzzer	85dB					
Cooling Method	Natural Air Circulation					
Safety Approval (Waterproof from Front)	IP65 / NEMA 4X / CE, UL					
Operating Temp.	32° - 122°F (0° - 50°C)					
Storage Temp.	-4° - 140°F (-20° - 60°C)					
Ambient Humidity	10% - 90% RH (0 - 40°C), 10% - 55% RH (41 - 50°C)					
Vibration Resistance	IEC61131-2 compliant, when vibration is NOT continuous: 5 Hz - 9 Hz 3.5 mm, 9 Hz - 150 Hz 1G, X, Y, Z directions for 10 times					
Weight in Lbs. (kg)	.69 (.315)		1.69 (.768)		2.52 (1.147)	3.79 (1.721)

## PLC Drivers

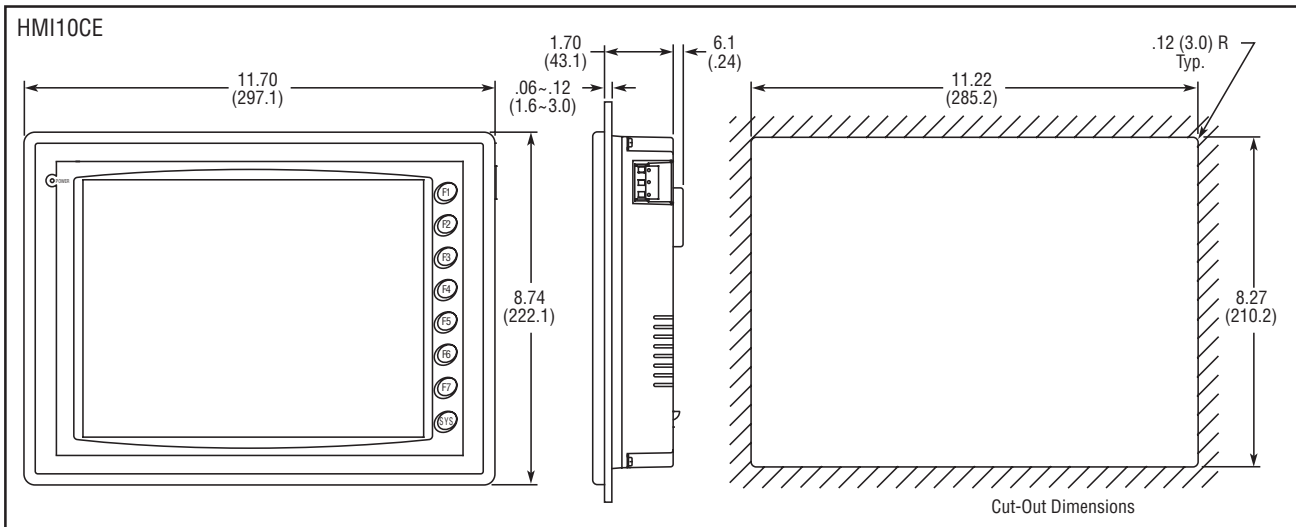
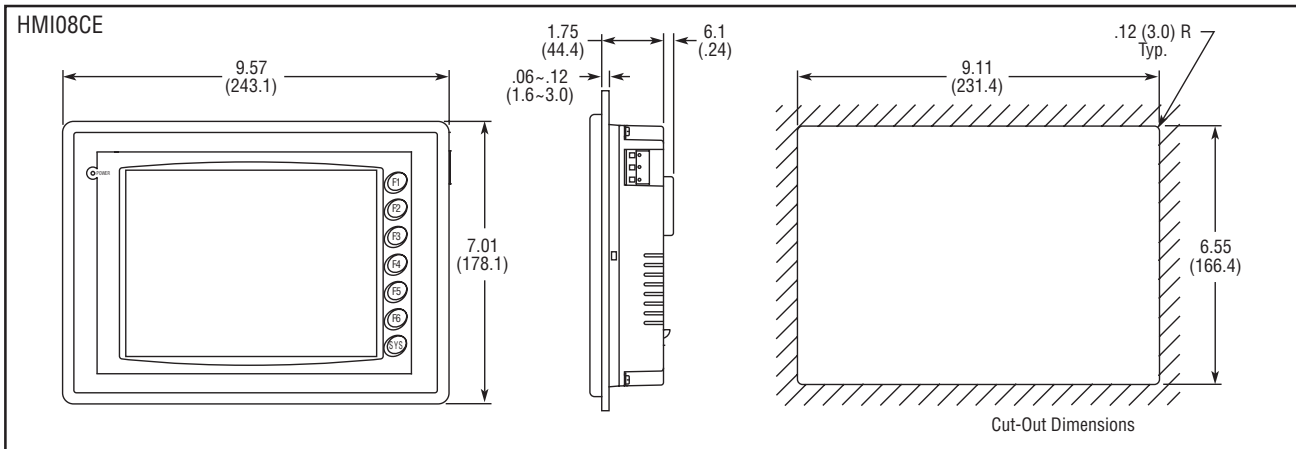
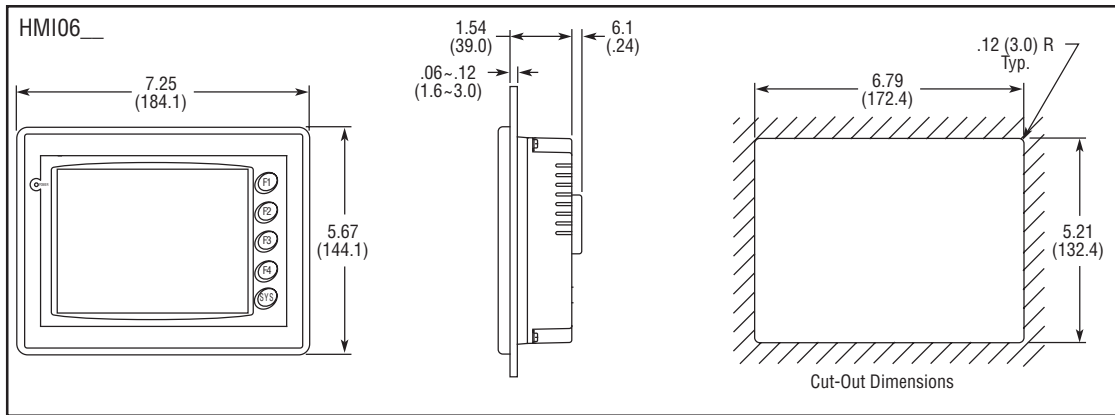
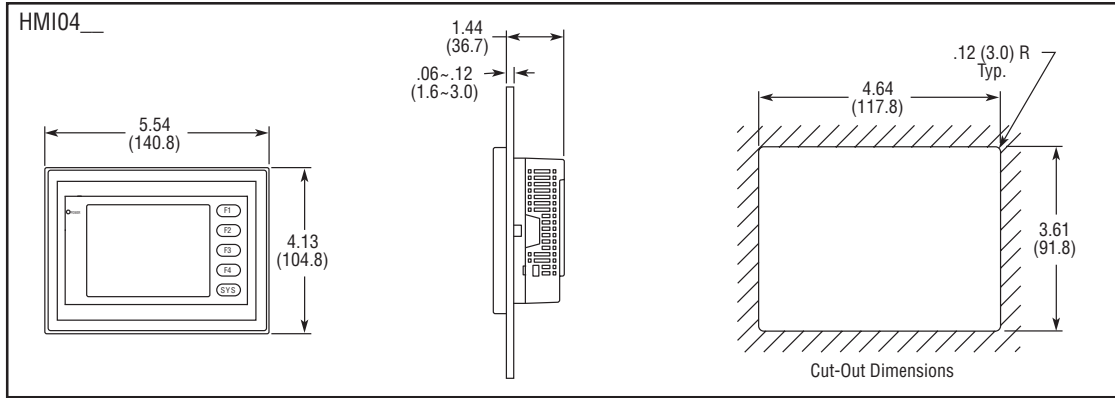
- Allen Bradley MicroLogix, SLC 500
- Danfoss VLT 2800 (FC Protocol)
- Eaton Cutler-Hammer ELC Series
- Facon FB Series
- Festo Festo PLC
- GE Fanuc 90 Series SNP
- Hust CNC Controller, Hust CNC Controller v2
- Jetter Nano Series
- Keyence KV/KZ Series
- Koyo DL/SU Series(DirectNet), K-Sequence
- Lenze LECOM-A/B protocol
- LG Master-K 120S/200S, Glofa GM6 CNET, Master-K CNET
- Li Yan LYPLC EX
- M2i M2i Master, M2i Slave
- Matsushita/Aeromat FP Series
- Mirle FAMA SC
- Mitsubishi FX Series, FX2N, A Series/J71UC24, A2A/A2AS/A2USH A1SH/A3N/A2ASH CPU Port, Q Series CPU Port
- MKS CT150
- MODBUS ASCII (Master) 984 RTU (Master), RTU 2W (Master), ASCII Hex Address (Master), RTU Hex Address (Master), ASCII nW (Master), RTU nW (Master) ASCII (Slave), RTU (Slave)
- Modicon/Telemecanique TSX Micro (Uni-Telway) NEZA (Uni-Telway), TWIDO
- NIKKI DENSO NCS-FI/FS Series
- Omron C Series, Cj1 Series, TPM1A
- SIEMENS S7 200, S7 300 (with PC Adapter), S7 300 (without PC Adapter)
- TECO TP02
- Texas Instruments Ti435
- Vigor M Series
- VIPA S7 300 (with PC Adapter)
- YOKOGAWA ACE(FA-M3R)

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HMI Dimensions



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