

HMi Operator Interface



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Product Description

Positioned between the ELC graphics panels and the XV series of operator interfaces, **HMi** is the workhorse of the industry. The units feature touchscreen and function buttons to suit all environments and applications. They range in screen size and color to fit available space and application needs. All units offer RS-232, RS-485 and RS-422 communications. The 6, 8 and 10 inch units also offer Ethernet communication options.

Features

- Analog touchscreen
- Auto-scale application from 10 to 4 inch
- Screen saver
- Pop-up screens
- Animated graphics
- Conditional visibility
- Clock synchronization
- Data archiving
- Multi-language
- Eight levels of security
- Embedded logic for use with local I/O
- Ethernet communication drivers
- Ethernet, COMM port and USB upload/download
- USB ports for data storage
- Three serial ports
- Up to four simultaneous protocols
- Math and logic functions
- Recipes
- Macro capability
- Alarm/event recording and viewing
- Real-time and historical trending
- On and off-line simulation

## Protocols

### Supported Protocols

#### Manufacturer and Protocol

<b>Allen-Bradley</b>
MicroLogix
SLC 5
<b>Cimon</b>
BP Series Loader Protocol
CP Series Loader Protocol
XP Series Loader Protocol
<b>Copley</b>
Stepnet
<b>Danfoss</b>
VLT 2800 (FC Protocol)
<b>Delta</b>
Delta DVP PLC
Delta DVP EH/SA ES/EX/SS (V5.1)
Delta Controller ASCII
Delta Controller RTU
Delta DVP TCP/IP
<b>Eaton</b>
ELC Series Serial
ELC Series TCP/IP
GVX—RTU
GVX—ASCII
MXV—RTU
MXV—ASCII
NFX—RTU
NFX—ASCII
Eaton Controller ASCII
Eaton Controller RTU
EasyPLC 800/MFD (EasyCom)
<b>Emerson</b>
EC20 Series
<b>Facon</b>
FB Series

#### Manufacturer and Protocol

<b>Festo</b>
Festo PLC
<b>FuFeng</b>
APC
<b>Fuji Electric</b>
Frenic Inverter
<b>GE Fanuc</b>
Series 90 SNP
<b>Hitachi</b>
EH Series Procedure 1
EH Series Procedure 2
<b>Hust</b>
Hust CNC Controller
Hust CNC Controller v2
<b>IDEC</b>
Micro Smart
<b>Jetter</b>
JC Series
Nano Series
<b>Keyence</b>
KV/KZ Series
<b>Koyo</b>
DL/SU Series
K-Sequence
<b>Lenze</b>
LECOM-A/B Protocol
<b>LG</b>
Master-K 120S/200S
Glofa GM6 CNET
Master-K CNET
XGT CNET
<b>LiYan</b>
LYPLC EX

#### Manufacturer and Protocol

<b>M2i</b>
M2i Master
M2i Slave
<b>Matsushita</b>
FP Series
<b>Mirle</b>
FAMA SC
<b>Mitsubishi</b>
FX Series
FX2N
FX3U
FX Series Computer Link
A Series/J71UC24
A2A/A2AS/A2USH
A1SH/A3N/A2ASH CPU Port
Q Series CPU Port
Q Series Computer Link
J2s Series
<b>MKS</b>
BY125
CT150
MC700/720
<b>Modbus</b>
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)
TCP/IP

#### Manufacturer and Protocol

<b>Modicon</b>
TSX Micro (Uni-Telway)
TSX Premium (Uni-Telway 1-1)
NEZA (Uni-Telway)
TWIDO
<b>Moeller</b>
PS3 Series
PS4 Series
<b>NIKKI DENSO</b>
NCS-FI/FS Series
<b>Omron</b>
C Series
CJ1 Series
TPM1A
<b>Parker</b>
Compax 3
<b>SIEMENS</b>
S7 200
S7 300 (with PC Adaptor)
S7 300 (without PC Adaptor)
S7 300 (Direct MPI)
S7 300 (ISO TCP)
<b>Taian</b>
TP02
<b>Ti</b>
Ti435
<b>Vigor</b>
M Series
<b>VIPA</b>
S7 300 (with PC Adaptor)
<b>YOKOGAWA</b>
ACE

## Standards and Certifications

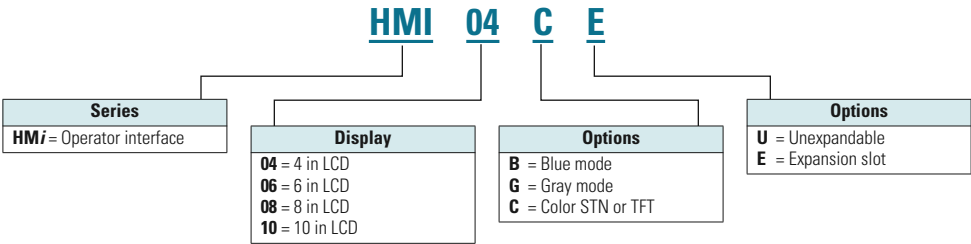
- CE
- UL
- cUL
- C-Tick
- RoHS



Catalog Number Selection

HMI Operator Interface

HMI



Product Selection

Ordering Information

For blank bezel (Eaton logo removed), add suffix **-B**.  
Example: HMI04BU-**B**.

For blank bezel with function buttons, add suffix **-BF**.  
Example: HMI06CE-**BF**.

Contact factory for custom bezel.

HMI\_

HMI Products



Description	Catalog Number
4 in blue mode touchscreen	HMI04BU
4 in color TFT touchscreen	HMI04CU
6 in blue mode with expansion slot	HMI06BE
6 in gray scale mode with expansion slot	HMI06GE
6 in color STN with expansion slot	HMI06CE
6 in color TFT touchscreen	HMI06CU
8 in color TFT with expansion slot	HMI08CE
10 in color TFT with expansion slot	HMI10CE

# 39.3 Operator Interface Products

## HMI/Operator Interface

### Software and Accessories

#### HMIs oft Programming Software

For use with the **HMI** series of touchscreens, this software supports all of the features of **HMI** models. This easy to use Windows based software can run on Windows 2000, XP, Vista, and Windows 7 with a minimum CPU of Pentium III 500 MHz, 256 MB RAM, 500 MB free hard disk space.

- Simulate an application on or off line
- Built in picture library
- Create your own picture library
- Screen manager
- Over 70 on-screen objects
- Easy object setup
- Monitor all states of objects
- Macro editing
- Scale application from 10 to 4 inches
- Upload/download applications over USB, serial, or Ethernet
- Store archived data, alarms, and events to USB
- Logic configuration for I/O expansion modules
- Ethernet communications

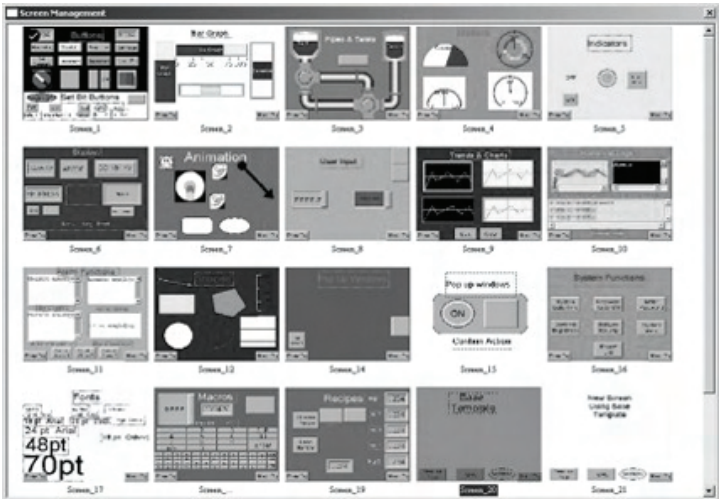
#### HMI Editor



#### HMI Editor

Description	Catalog Number
HMI programming software	HMISOFT

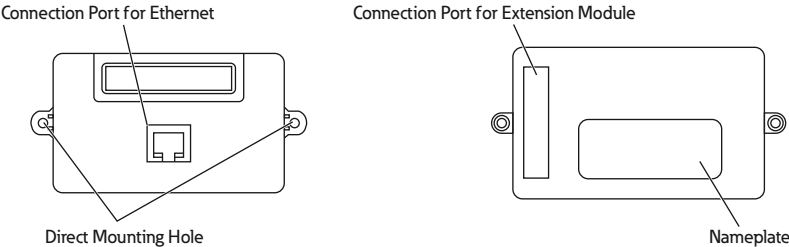
#### HMI Screen Management



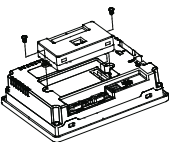
**Ethernet Expansion Module**

The HMIECENT expansion module adds 10/100 Ethernet communications when plugged into the expansion slot of a 6, 8 or 10 inch **HMi** unit. Upload and download programs and communicate to other supported Ethernet devices listed in the Supported Protocols table. No need to distinguish between patch or crossover cables because this module auto-detects and adjusts for proper operation.

**Product Outline**



**HMIECENT**



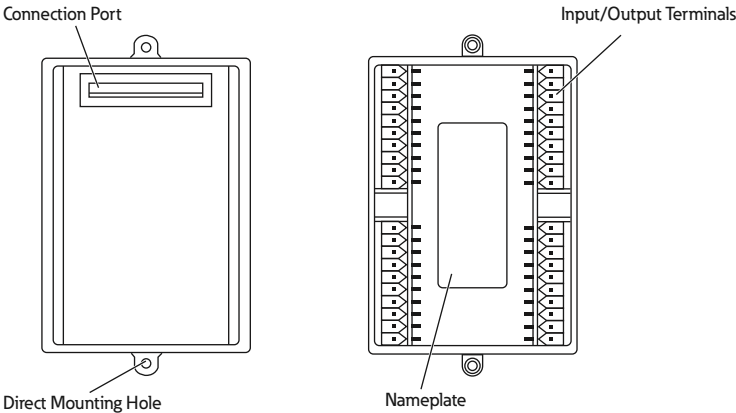
**HMIECENT**

Description	Catalog Number
Ethernet expansion module	HMIECENT

**I/O Expansion Modules**

The HMIEC0806 and HMIEC1612 are 14 and 28 discrete I/O expansion modules providing eight DC inputs and six relay outputs or 16 DC inputs and 12 relay outputs. These modules plug into the available expansion slot on the back of the **HMi** unit (not available on the four inch model). No need for a separate PLC controller with this built in unit. Combine operator interface and logic into a single platform—use HMISOFT to build both the ladder logic and OI program.

**Product Outline**



**I/O Expansion Modules**

Power	Input Unit Point	Type	Output Unit Point	Type	Catalog Number
5 Vdc supplied by <b>HMi</b>	8	DC Type sink or source	6	Relay	HMIEC0806
	16		12	Relay	HMIEC1612

**HMIEC\_**

Description	Catalog Number
I/O expansion module, 8 in/6 out	HMIEC0806
I/O expansion module, 16 in/12 out	HMIEC1612

**Adapter Plate**

Description	Catalog Number
6 in <b>HMI</b> adapter plate for PM1000	APPM1HMI6

**Kits**

Description	Catalog Number
8 in anti-glare overlay kit (5/kit)	17AGT
10 in anti-glare overlay kit (5/kit)	39AG
<b>HMI</b> spare parts kits (includes several power connectors, battery doors, gaskets, mounting clips, etc.)	HMI-SPKIT

**Replacement Gaskets**

Description	Catalog Number
4 in <b>HMI</b> replacement gasket (2/kit)	HMI04-GASKET
6 in <b>HMI</b> replacement gasket (2/kit)	HMI06-GASKET
8 in <b>HMI</b> replacement gasket (2/kit)	HMI08-GASKET
10 in <b>HMI</b> replacement gasket (2/kit)	HMI10-GASKET

**Cable**

Description	Catalog Number
1 meter cable to connect between the <b>HMI</b> and Eaton Logic Controller (ELC)	ELC-CBPCELC1
3 meter cable to connect between the <b>HMI</b> and Eaton Logic Controller (ELC)	ELC-CBPCELC3

**Power Supply**

Description	Catalog Number
1 amp 24 Vdc power supply	ELC-PS01
2 amp 24 Vdc power supply	ELC-PS02

## Technical Data and Specifications

### HMI Operator Interface

Description	Specification HMI04BU	HMI04CU	HMI06BE	HMI06GE
Display type	STN	TFT LCD	STN	FSTN
Display color	8 blues	65536 colors	8 blues	16 grays
Screen pixels	320 x 240 pixels	320 x 240 pixels	320 x 240 pixels	320 x 240 pixels
NIT rating	100 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>	130 cd/m <sup>2</sup>	130 cd/m <sup>2</sup>
LCD module	LED backlight	LED backlight	CCFL backlight	CCFL backlight
Backlight life	10,000 hours half-life at 25°C ①	30,000 hours half-life at 25°C ①	50,000 hours half-life at 25°C ①	50,000 hours half-life at 25°C ①
Display size	3.8 in (78.8 x 59.6 mm)	3.5 in (70.1 x 52.6 mm)	5.7 in (118.2 x 89.4 mm)	5.7 in (118.2 x 89.4 mm)
Operating system	Real Time OS	Real Time OS	Real Time OS	Real Time OS
MCU	32-bit RISC micro-controller/206.4 MHz			
Memory				
Program	1M	3M	3M	3M
History	120K	120K	360K	360K
Recipe	64K ②	64K ②	128K	128K
Alarm	4K	4K	16K	16K
Data registers				
Volatile	64K	64K	64K	64K
Non-volatile	1K	1K	1K	1K
Backup memory (bytes)	128K	128K	512K	512K
USB host ③	✓	✓	—	—
Expansion port	✓	✓	—	—
USB client for programming	✓	✓	✓	✓
Serial COM port				
COM1	RS-232	RS-232	RS-232	RS-232
COM2	RS-422/RS-485	RS-422/RS-485	RS-232/RS-422/RS-485	RS-232/RS-422/RS-485
COM3	RS-232	RS-232	RS-232/RS-422/RS-485	RS-232/RS-422/RS-485
Function key	4 user defined keys + 1 system key	4 user defined keys + 1 system key	4 user defined keys + 1 system key	4 user defined keys + 1 system key
Perpetual calendar (RTC)	Built-in	Built-in	Built-in	Built-in
Cooling method	Natural air circulation	Natural air circulation	Natural air circulation	Natural air circulation
Enclosure ratings	IP65/NEMA 4X (indoor only)	IP65/NEMA 4X (indoor only)	IP65/NEMA 4X (indoor only)	IP65/NEMA 4X (indoor only)
Agency certifications	CE/UL/cUL/C-Tick	CE/UL/cUL/C-Tick	CE/UL/cUL/C-Tick	CE/UL/cUL/C-Tick
Operating voltage	DC +24V (–10% to +15%) (use isolated power supply) ④			
Power consumption ⑤	2.64W	3.36W	7.2W	7.2W
Operating temp.	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)
Storage temp.	–4° to 140°F (–20° to 60°C)	–4° to 140°F (–20° to 60°C)	–4° to 140°F (–20° to 60°C)	–4° to 140°F (–20° to 60°C)
Ambient humidity	10% to 90% RH (0° to 40°C), 10% to 55% RH (41° to 50°C) pollution degree 2			
Shock	30G at 11 ms	30G at 11 ms	30G at 11 ms	30G at 11 ms
Vibration resistance	IEC61131-2 compliant 5 Hz ≤ f < 9 Hz = continuous: 1.75 mm/occasional: 3.5 mm 9 Hz ≤ f < 150 Hz = continuous: 0.5g/occasional: 1.0g X, Y, Z directions for 10 times			
Backup battery	3V lithium battery CR2032 x 1/battery life: 5 years			
Backup battery life	Three years or more at 25°C	Three years or more at 25°C	Three years or more at 25°C	Three years or more at 25°C
Buzzer	Multitone frequency (2K to 4K Hz)/85dB			
Dimensions (W) x (H) x (D) in inches (mm)	5.54 x 4.13 x 1.76 (140.8 x 104.8 x 44.8)	5.54 x 4.13 x 1.76 (140.8 x 104.8 x 44.8)	7.25 x 5.67 x 1.85 (184.1 x 144.1 x 47)	7.25 x 5.67 x 1.85 (184.1 x 144.1 x 47)
Panel cutout (W) x (H) in inches (mm)	4.68 x 3.65 (118.8 x 92.8)	4.68 x 3.65 (118.8 x 92.8)	6.79 x 5.21 (172.4 x 132.4)	6.79 x 5.21 (172.4 x 132.4)
Weight in lbs (kg)	0.69 (0.315)	0.62 (0.310)	1.69 (0.768)	1.69 (0.768)

#### Notes

- ① The half-life of backlight is defined as original luminance being reduced by 50% when the maximum driving current is supplied to **HMI**.  
The life of LED backlight shown is an estimated value under 25°C normal temperature and humidity conditions.
- ② Program memory is used for recipes.
- ③ USB Host port can provide up to 5V/500mA of power. Supports USB memory devices and certain USB printers.
- ④ Use isolated power supply (not applicable for HMI08CE and HMI10CE).
- ⑤ The value of the power consumption indicates the electrical power consumed by **HMI** without peripheral devices.  
In order to ensure the normal operation, it is recommended to use a power supply which the capacity is 1.5 to 2 times the value of the power consumption.

## HMI/Operator Interface, continued

Description	Specification HMI06CE	HMI06CU	HMI08CE	HMI10CE
Display type	STN	TFT LCD	TFT LCD	TFT LCD
Display color	256 colors	65536 colors	65536 colors	65536 colors
Screen pixels	320 x 240 pixels	320 x 240 pixels	640 x 480 pixels	640 x 480 pixels
NIT rating	100 cd/m <sup>2</sup>	200 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>	330 cd/m <sup>2</sup>
LCD module	CCFL backlight	LED backlight	CCFL backlight	2CCFL backlight
Backlight life	50,000 hours half-life at 25°C ①	50,000 hours half-life at 25°C ①	50,000 hours half-life at 25°C ①	50,000 hours half-life at 25°C ①
Display size	5.7 in (118.2 x 89.4 mm)	5.6 in (113.3 x 84.7 mm)	8 in (162.2 x 121.7 mm)	10.4 in (215.2 x 162.4 mm)
Operating system	Real Time OS	Real Time OS	Real Time OS	Real Time OS
MCU	32-bit RISC micro-controller/206.4 MHz	32-bit RISC micro-controller/266 MHz	32-bit RISC micro-controller/206.4 MHz	32-bit RISC micro-controller/206.4 MHz
Memory				
Program	3M	7M	7M	7M
History	360K	125K ②	360K	360K
Recipe	128K	128K	128K	128K
Alarm	16K	125K ②	16K	16K
Data registers				
Volatile	64K	64K	64K	64K
Non-volatile	1K	1K	1K	1K
Backup memory (bytes)	128K	128K	512K	512K
USB host ③	—	✓	✓	✓
Expansion port	✓	—	✓	✓
USB client for programming	✓	✓	✓	✓
Serial COM port				
COM1	RS-232	RS-232	RS-232	RS-232
COM2	RS-232/RS-422/RS-485	RS-232/RS-485	RS-232/RS-422/RS-485	RS-232/RS-422/RS-485
COM3	RS-232/RS-422/RS-485	RS-422/RS-485	RS-232/RS-422/RS-485	RS-232/RS-422/RS-485
Function key	4 user defined keys + 1 system key	N/A	6 user defined keys + 1 system key	7 user defined keys + 1 system key
Perpetual calendar (RTC)	Built-in	Built-in	Built-in	Built-in
Cooling method	Natural air circulation	Natural air circulation	Natural air circulation	Natural air circulation
Enclosure ratings	IP65/NEMA 4X (indoor only)	IP65/NEMA 4X (indoor only)	IP65/NEMA 4X (indoor only)	IP65/NEMA 4X (indoor only)
Agency certifications	CE/UL/cUL/C-Tick	CE/UL/cUL/C-Tick	CE/UL/cUL/C-Tick	CE/UL/cUL/C-Tick
Operating voltage	DC +24V (–10% to +15%) (use isolated power supply) ④			
Power consumption ⑤	7.2W	3.0W	14W	15W
Operating temp.	32° to 122°F (0° to 50°C)	32° to 131°F (0° to 55°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)
Storage temp.	–4° to 140°F (–20° to 60°C)	–4° to 140°F (–20° to 60°C)	–4° to 140°F (–20° to 60°C)	–4° to 140°F (–20° to 60°C)
Ambient humidity	10% to 90% RH (0° to 40°C), 10% to 55% RH (41° to 50°C) pollution degree 2			
Shock	30G at 11 ms	30G at 11 ms	30G at 11 ms	30G at 11 ms
Vibration resistance	IEC61131-2 compliant 5 Hz ≤ f < 9 Hz = continuous: 1.75 mm/occasional: 3.5 mm 9 Hz ≤ f < 150 Hz = continuous: 0.5g/occasional: 1.0g X, Y, Z directions for 10 times			
Backup battery	3V lithium battery CR2032 x 1/battery life: 5 years			
Backup battery life	3 years or more at 25°C	3 years or more at 25°C	3 years or more at 25°C	3 years or more at 25°C
Buzzer	Multitone frequency (2K to 4K Hz)/85dB			
Dimensions				
(W) x (H) x (D) in inches (mm)	7.25 x 5.67 x 1.85 (184.1 x 144.1 x 47)	7.25 x 5.67 x 1.85 (184.1 x 144.1 x 47)	9.57 x 7.01 x 2.06 (243.1 x 178.1 x 52.4)	11.70 x 8.74 x 2.01 (297.1 x 222.1 x 51.1)
Panel cutout				
(W) x (H) in inches (mm)	6.79 x 5.21 (172.4 x 132.4)	6.79 x 5.21 (172.4 x 132.4)	9.11 x 6.55 (231.4 x 166.4)	11.23 x 8.28 (285.2 x 210.2)
Weight in lbs (kg)	1.69 (0.768)	1.48 (0.670)	2.52 (1.147)	3.79 (1.721)

## Notes

① The half-life of backlight is defined as original luminance being reduced by 50% when the maximum driving current is supplied to **HMI**.

The life of LED backlight shown is an estimated value under 25°C normal temperature and humidity conditions.

② A total of 125K Bytes of memory is shared for History and Alarms.

③ USB Host port can provide up to 5V/500mA of power. Supports USB memory devices and certain USB printers.

④ Use isolated power supply (not applicable for HMI08CE and HMI10CE).

⑤ The value of the power consumption indicates the electrical power consumed by **HMI** without peripheral devices.

In order to ensure the normal operation, it is recommended to use a power supply which the capacity is 1.5 to 2 times the value of the power consumption.



## HMIEC0806/HMIEC1612

Description	Specification	Remark
Control method	Stored program, cyclic scan system	—
I/O processing method	Batch I/O (refresh)	Immediate refresh command available only with I/O of the MPU
Execution speed	Basic command (30 µs)	Application command (30 ~ hundreds µs)
Program language	Commands + ladder diagram + SFC	Step commands included
Program capacity	999 Steps	Built-in EEPROM
Commands	Basic commands: 32 (including the STL commands)	Application commands: 59
Step relay (latched)		
General step point	128 points	S0 ~ S127
Auxiliary relay		
General	1024 points	M0 ~ M511, M768 ~ M999, 744 points; M1000 ~ M1279, 280 points ①
Latched	256 points	M512 ~ M767
Timer		
Digital	64 points	T0 ~ T63 (100 ms time base)
	63 points	T64 ~ T126 (10 ms time base)
	1 point	T127 (1 ms time base)
Counter		
General	112 points	C0 ~ C111
Latched	16 points	C112 ~ C127
32 bit	13 points	C235, C236, C237, C238, C241, C242, C244, C246, C247, C249, C251, C252, C254 (all latched)
Data register		
General	408 points	D0 ~ D407
Latched	192 points	D408 ~ D599
Pointer		
P	64 points	P0 ~ P63
Index register		
E/F	2	E, F
Constant		
Decimal K	16 bit: -32768 ~ +32767	32 bit: -2147483648 ~ +2147483647
Hexadecimal H	16 bit: 0000 ~ FFFF	32 bit: 00000000 ~ FFFFFFFF
Self diagnosis/protection	I/O check, system execution timeout check, invalid command check, program check and password settings	
Monitor/debug	Program execution time display, bit / word, device settings	
Certifications	C-Tick, cULus, CE	

**Note**

① M1000, M1001, M1002, M1003, M1020, M1021, M1022, M1067, M1068, and M1161 are the special auxiliary relays (special M).

## HMIEC0806/HMIEC1612, continued

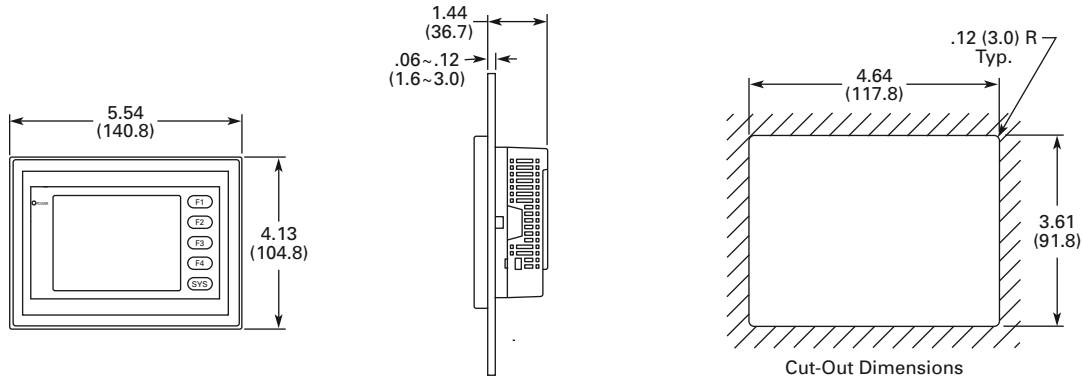
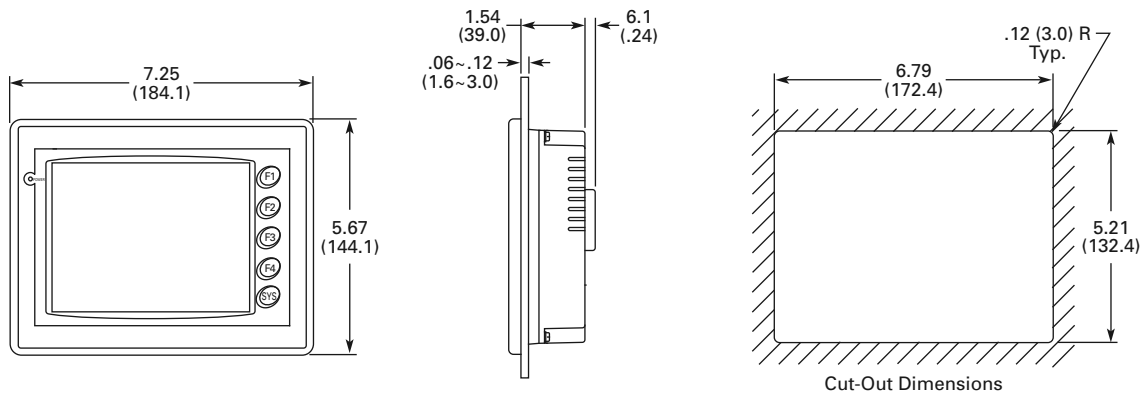
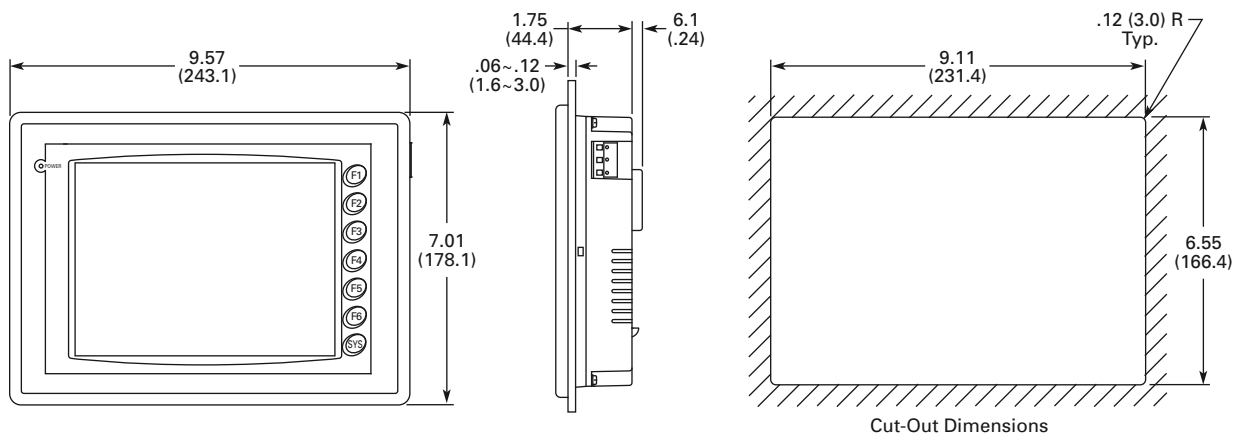
Description	Specification HMIEC0806	HMIEC1612
Power supply voltage	5 Vdc, 1A (supplied by <b>HM<i>i</i></b> )	5 Vdc, 1A (supplied by <b>HM<i>i</i></b> )
Power consumption	0.25W	0.5W
Noise immunity RS, CS, ESD, and EFT	Frequency: 80 MHz ~ 1 GHz, 1.4 GHz ~ 2.0 GHz, test level 10 V/m Frequency: 0.15 MHz ~ 80 MHz, test level 10V ( <b>HM<i>i</i></b> power port and I/O line) Air discharge ±8 kV	Frequency: 80 MHz ~ 1 GHz, 1.4 GHz ~ 2.0 GHz, test level 10 V/m Frequency: 0.15 MHz ~ 80 MHz, test level 10V ( <b>HM<i>i</i></b> power port and I/O line) Air discharge ±8 kV
Surge	±1.5 kV ( <b>HM<i>i</i></b> power port), ±1 kV (I/O line) ±2 kV ( <b>HM<i>i</i></b> power port)	±1.5 kV ( <b>HM<i>i</i></b> power port), ±1 kV (I/O line) ±2 kV ( <b>HM<i>i</i></b> power port)
Ambient temperature/humidity	Operation: 0°C to 50°C (temperature), 10 to 90% (humidity) Storage: -40°C to 85°C (temperature), 10 to 90% (humidity)	Operation: 0°C to 50°C (temperature), 10 to 90% (humidity) Storage: -40°C to 85°C (temperature), 10 to 90% (humidity)
Vibration/shock	IEC 61131-2 Compliant 5 Hz ≤ f < 9 Hz = Continuous: 1.75 mm / Occasional: 3.5 mm 9 Hz ≤ f ≤ 150 Hz = Continuous: 0.5g / Occasional: 1.0g X, Y, Z directions for 10 times	IEC 61131-2 Compliant 5 Hz ≤ f < 9 Hz = Continuous: 1.75 mm / Occasional: 3.5 mm 9 Hz ≤ f ≤ 150 Hz = Continuous: 0.5g / Occasional: 1.0g X, Y, Z directions for 10 times
Weight	95.5g	116g
<b>Input Point Electric Specifications</b>		
Input type	DC (SINK or SOURCE)	DC (SINK or SOURCE)
Input voltage	24 Vdc (5mA)	24 Vdc (5mA)
Active level	Off → On, above 16 Vdc On → Off, below 14.4 Vdc	Off → On, above 16 Vdc On → Off, below 14.4 Vdc
Response time	Approx. 10 ms	Approx. 10 ms
<b>Output Point Electric Specifications</b>		
Output type	Relay-R	Relay-R
Current specifications	1.5A/1 point (5A/COM)	1.5A/1 point (5A/COM)
Voltage specifications	250 Vac, below 30 Vdc	250 Vac, below 30 Vdc
Maximum loading	75 VA (inductive), 90W (resistive)	75 VA (inductive), 90W (resistive)
Response time	Approx. 10 ms	Approx. 10 ms
Mechanical life	2–107 times (without load)	2–107 times (without load)
Electrical life	100,000 times (3A 250 Vac/30 Vdc) 6,000 times (5A 250 Vac/30 Vdc)	100,000 times (3A 250 Vac/30 Vdc) 6,000 times (5A 250 Vac/30 Vdc)

## HMIECENT

Description	Specification
Power supply voltage	5 Vdc ±10%, 1A (provided by <b>HM<i>i</i></b> )
Interfaced supported	RJ-45 with auto MDI/MDIX
Number of ports	1
Transmission method (standard conformance)	IEEE 802.3, IEEE 802.3u
Transmission cable	Category 5e (TIA/EIA-568-A, TIA/EIA-568-B)
Transmission speed	10/100 Mbps auto detection
Ethernet protocol	ICMP, IP, TCP, UDP, DHCP, Modbus TCP
Noise immunity	ESD (IEC 61131-2, IEC 61000-4-2): 8 kV air discharge EFT (IEC 61131-2, IEC 61000-4-4): Power line: 2 kV, Communication I/O: 1 kV Damped-oscillatory wave: Power line: 1 kV, digital I/O: 1 kV RS (IEC 61131-2, IEC 61000-4-3): 26MHz ~ 1GHz, 10V/m
Certifications	C-Tick, cULus, CE

**Dimensions**

Approximate Dimensions in Inches (mm)

**HMI04****HMI06 ①****HMI08CE****Note**

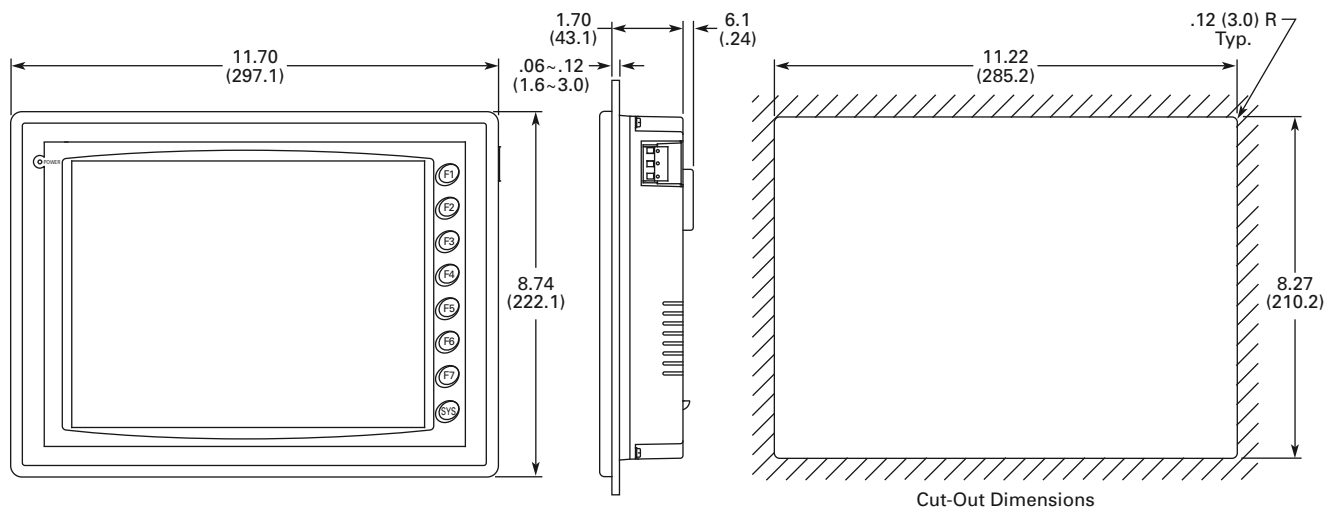
① HMI06CU does not have function buttons.

# 39.3 Operator Interface Products

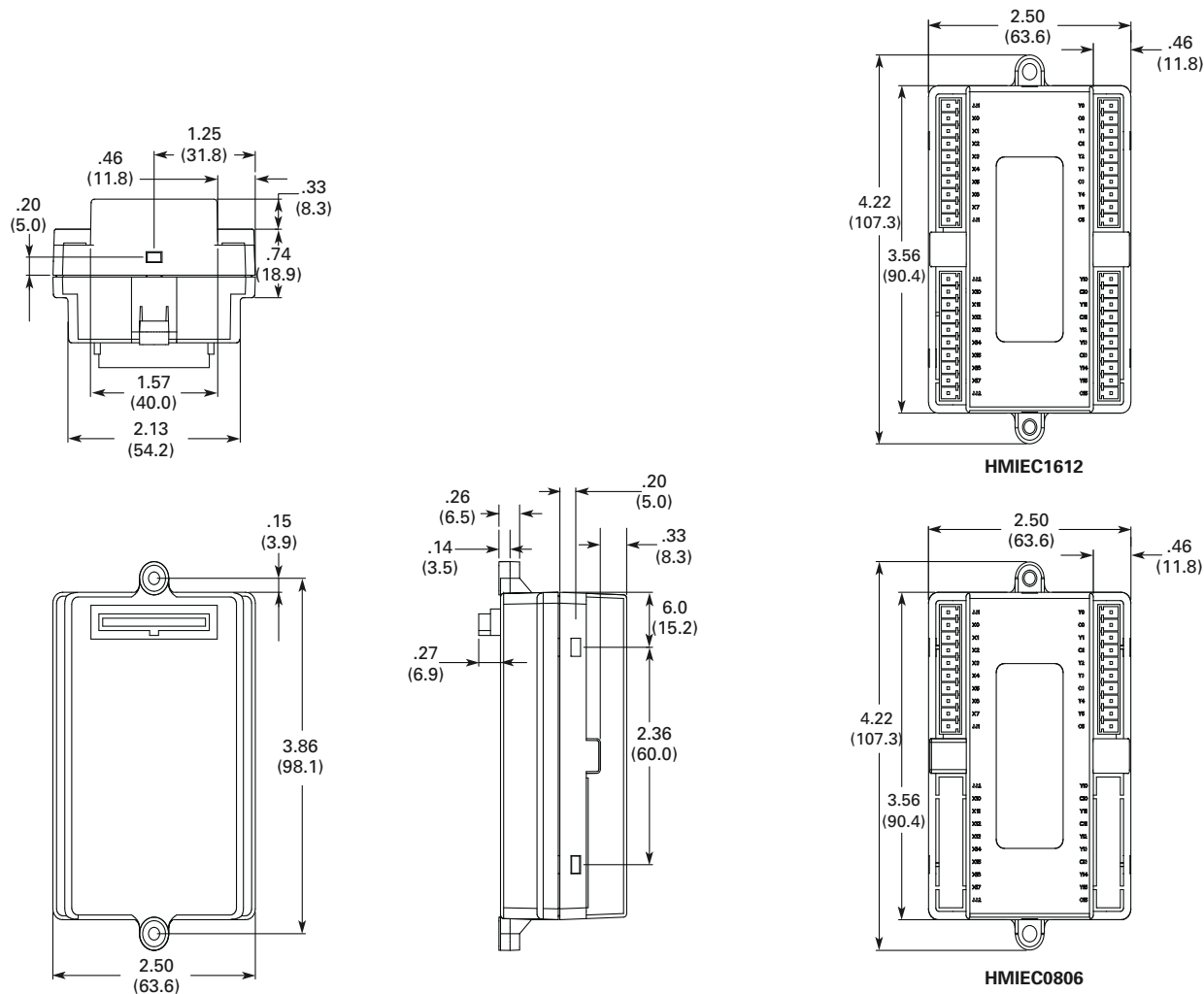
## HM<sub>i</sub>/Operator Interface

Approximate Dimensions in Inches (mm)

### HM10CE



### HMIEC0806 and HMIEC1612 Expansion Modules



Approximate Dimensions in Inches (mm)

### HMIECENT Ethernet Expansion Module

