



# CMT X Series

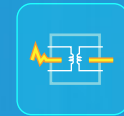
*Fast x Smart x Reliable*

## cMT X Series

# 모든 기능을 갖춘 스마트 HMI

cMT X 시리즈는 뛰어난 하드웨어 성능으로 작업 환경을 업그레이드 할 수 있으며, 데이터 통합, 모니터링 및 클라우드 애플리케이션 등을 포함한 여러 소프트웨어 기능이 지원됩니다. 우수한 하드웨어와 탁월한 소프트웨어로 스마트 환경을 구축할 수 있는 최적의 스마트 HMI입니다.

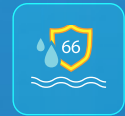
### Premium Protection<sup>+</sup>



Power Isolation



PCB Coating



NEMA4/ IP66



CE / UL Certification

### Performance

Quad-core CPU

### Display

178° Wide Viewing Angle

### Capacity

4GB Flash / 1GB RAM

### Connectivity

400+ Communication Drivers



## 01

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## Solution 01

# 다양한 소프트웨어 기능

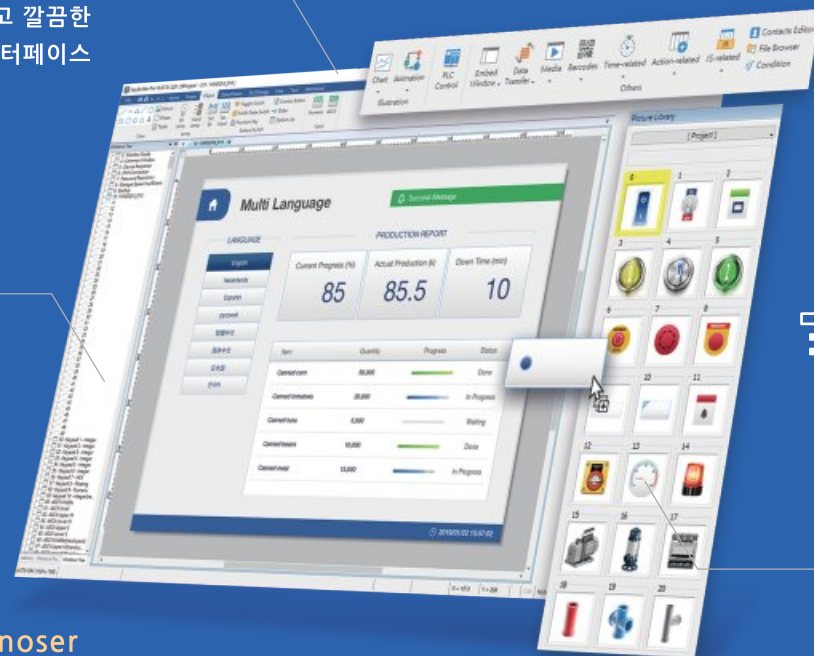
EasyBuilder Pro는 Weintek HMI 프로젝트 편집 소프트웨어로 직관적이고 깔끔한 UI, 풍부한 디자인 리소스, 다양한 고급 기능을 제공하여 누구나 쉽게 HMI 프로젝트를 구축할 수 있습니다.

**Ribbon Style**  
직관적이고 깔끔한 사용자 인터페이스

**Window Layers**  
복잡한 프로젝트를 레이어로 구분하여 쉽게 편집

**Tool: cMT Diagnoser**  
데이터 모니터링, 통신 상태 테스트, 코드 디버깅 등, HMI 동작 확인

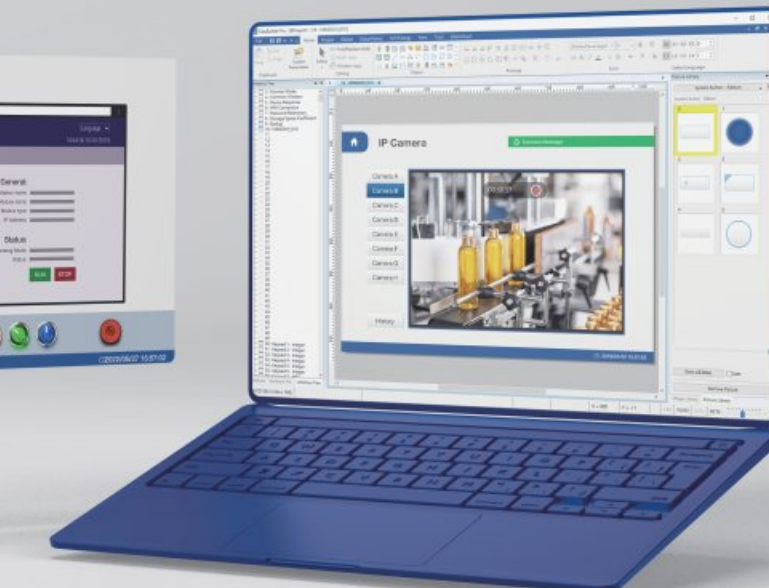
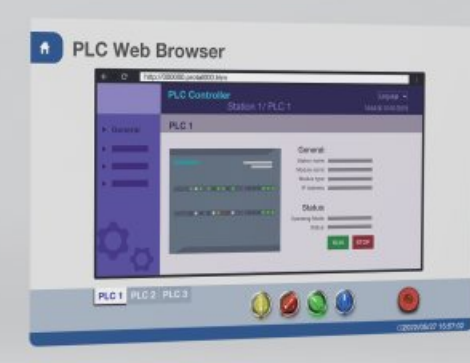
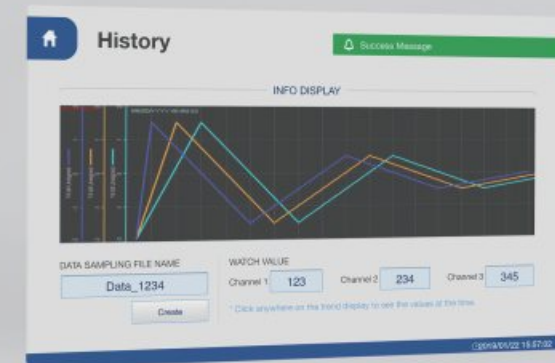
**Tool: 온라인 가상운전**  
HMI 없이 통신을 확인하고 프로젝트 작업 결과를 미리 시뮬레이션



**if** **심플한 디자인 프로세스: 조건 기능**  
코드 대신 그래픽 UI를 사용하여 if/else 기능 구성

**심플한 디자인 프로세스: 액션 기능**  
여러 실행 작업을 설정한 후 한 번의 클릭으로 모든 작업을 트리거

**1700+ 그림 라이브러리**  
다양한 스타일의 리소스로 깔끔하고 직관적인 프로젝트 구성



EasyBuilder Pro는 이미지, 램프, 버튼, 수치, 기본 차트, 레시피와 같은 일반 오브젝트 외에도 다양한 고급 기능을 통해 HMI 성능을 더욱 강화합니다.

**멀티미디어 지원**  
HMI에서 IP/USB 카메라 피드를 보거나 미디어 플레이어를 사용하여 HD 비디오를 재생할 수 있습니다.

**파일 전송 및 보기**  
FTP server 액세스를 사용하여 HMI의 다양한 파일 및 스크린샷을 서버로 전송하거나 서버에서 PDF 파일, 이미지 및 비디오를 다운로드하여 HMI에서 볼 수 있습니다.

**Web Browser**  
HMI에서 PLC, 컨트롤러 또는 임베디드 장치의 웹페이지를 열어 시스템 파라미터를 설정하거나 상태를 모니터링합니다.

**데이터 처리**  
데이터 샘플링, 알람 이벤트 로그, 운전 기록의 이력 데이터를 외부 데이터베이스와 동기화함과 동시에 데이터 무결성을 확인할 수 있습니다.

**안전 및 보안**  
HMI의 자체 보안 서버를 통해 로그인하거나 LDAP 프로토콜을 통해 외부 서버에서 로그인할 수 있습니다. LDAP는 사용자 권한을 중앙에서 관리하며 하나씩 업데이트할 필요가 없어 보안 관리의 효율성이 향상됩니다.

**사용자 정의 기능**  
자바 스크립트를 통해 소프트웨어 기능 이외의 다양한 기능을 사용자 정의하고 Web API와 연결하여 애플리케이션을 활성화합니다.

## Solution 02

# 데이터 통합

400개 이상의 장치 프로토콜과 IIoT 프로토콜, 데이터베이스 연결을 지원하여 현장 장비의 데이터를 신속하게 통합할 수 있습니다.



### 산업용 프로토콜 통합

산업용 표준 통신 프로토콜인 OPC UA 및 Modbus TCP/IP를 통해 산업 현장의 여러 장비의 데이터를 보다 쉽고 원활하게 통합할 수 있습니다.

#### 왜 OPC UA인가?

OPC UA는 주요 산업용 통신 프로토콜입니다. OPC UA를 사용하면 시스템 개방성, 연결성, 상호 운용성, 보안 및 안정성이 보장됩니다.



### MQTT 클라우드 통합

cMT X 시리즈는 클라우드 및 빅 데이터 시스템에 데이터를 쉽고 간단하게 전송할 수 있는 경량 프로토콜 MQTT 서버와의 연결을 지원합니다.

#### IoT 플랫폼 통합

EasyBuilder Pro에서 AWS, Azure 및 Google IoT 플랫폼에 대한 MQTT 연결 설정이 간소화되어 쉽고 간단하게 연결할 수 있습니다.



### 데이터베이스 통합

SQL 명령을 사용하여 데이터를 보다 효율적으로 처리할 수 있는 데이터베이스 또는 IT 시스템으로 데이터를 보냅니다.

#### 데이터베이스 유형

MySQL, MS SQL, MariaDB, Azure SQL 데이터베이스 시스템과의 연결을 지원합니다.

## Solution 03

# 모바일 모니터링

사용하는 애플리케이션에 따라 VNC, WebView, cMT Viewer 중 최적의 모니터링 방법을 선택할 수 있습니다.



### VNC Viewer

VNC Viewer로 HMI를 모니터링합니다.



### WebView

Chrome 또는 Safari와 같은 웹 브라우저에서 HMI를 모니터링합니다.

#### EasyWeb

웹 페이지에서 HMI를 설정하고 이력 데이터 로그와 이벤트 로그를 확인합니다.



### cMT Viewer App

cMT Viewer를 사용하여 안전하고 효율적으로 HMI를 모니터링합니다.

- 크로스 플랫폼 지원 (PC/Mobile)
- 멀티 HMI / 멀티 사용자 모니터링
- 제어 토큰을 통한 멀티 사용자의 안전한 조작 지원

#### Monitor Mode

모니터 모드를 통해 최대 20개의 HMI 화면을 동일한 화면에서 효율적으로 모니터링할 수 있습니다.



Google Play



App Store

## Solution 04

# Weincloud

### Dashboard × EasyAccess 2.0

Dashboard와 EasyAccess 2.0을 사용하면 언제 어디서나 현장 장비를 원격으로 모니터링하고 유지 관리할 수 있습니다.



### Dashboard Dashboard Monitoring

현장 장비 상태를 다양한 그래프와 차트, 표 등의 시각적 자료들로 시각화하여 한눈에 현장 상황의 중요한 정보를 파악할 수 있습니다.

#### 간편한 배포

서버 호스팅이 필요하지 않습니다.

#### 다양한 위젯

다양한 위젯으로 나만의 대시보드를 디자인할 수 있습니다.

#### 직관적인 UI

웹 기반의 드래그 앤 드롭 편집 도구로 대시보드를 즉시 구성할 수 있습니다.

#### 암호화 전송

암호화 보안 프로토콜(SSL/TLS)로 데이터를 안전하게 전송합니다.

#### 데이터 시각화

여러 HMI의 데이터 소스를 집계하여 한 페이지에 시각화합니다.

#### 데이터 보안

네트워크 문제 발생 시 데이터 임시 저장 기능으로 데이터 완전성을 보장합니다.



### EasyAccess 2.0 원격 연결 서비스

EasyAccess 2.0의 원격 연결, 푸시 알림, PLC 직결 연결 기능을 통해 현장이 아닐 때에도 언제 어디서나 HMI를 모니터링하고 유지 관리할 수 있습니다.

Solution 05

# Wireless Solution

WiFi를 모듈화하여 물리적 네트워크 연결이 어려운 환경에서도 보다 유연한 최적의 무선 네트워크 솔루션을 제공합니다.



cMT1106X / cMT2108X2 / cMT3102X / cMT3108XH / cMT3108XP

### cMT X Series + M02 Module

지연 시간 감소 | 더 빠른 속도 | 더 넓은 범위 | 효율적인 구축

1. 표준 주파수 대역 IEEE 802.11b/g/n 및 WPA/WPA2 암호화 방식을 지원하여 복잡한 산업 제어 환경에서 장치 데이터를 안전하게 전송할 수 있습니다.
2. 마그네틱 외부 안테나를 최적의 위치에 설치하여 신호 송수신 강도를 극대화할 수 있습니다.
3. WiFi 핫스팟을 통해 HMI에 쉽게 액세스할 수 있습니다.



Solution 06

# Headless HMI

컨트롤 박스에 쉽게 설치할 수 있는 컴팩트한 소형 Headless HMI는 본체에 화면을 포함하고 있지 않아 태블릿, 휴대폰, PC에서 다양한 크기의 화면을 cMT Viewer로 모니터링할 수 있습니다.

### cMT-FHDX-820

HDMI 포트 출력을 통해 다양한 크기의 모니터를 사용할 수 있으며 cMT X Advanced 시리즈의 다양한 소프트웨어 기능이 지원됩니다.



### cMT-SVRX-820/822

서버형 HMI는 cMT X 구조를 완벽하게 구현할 수 있으며, cMT Viewer 앱을 통해 PC, 태블릿, 모바일에서의 모니터링이 가능합니다.

\* Other wireless models: cMT-SVR-200 / cMT-SVR-202

Solution 07

# 프로그래밍 컨트롤

CODESYS PLC 컨트롤러 시스템과 통합된 HMI + iR 시리즈 모듈



Controller

HMI + CODESYS

HMI와 CODESYS는 각각의 코어에서 독립적으로 실행되어 서로의 시스템 기능에 영향을 미치지 않습니다.

cMT-CTRL01

CODESYS와 IIoT Gateway를 통합한 IIoT 컨트롤러입니다.



iR Series

iR-ETN40R

이더넷 컨트롤러와 디지털 I/O를 통합하는 소형 장치로 비용을 절감할 수 있는 간단하고 효율적인 솔루션을 제공합니다.

I/O Module

커플러 프로토콜: MODBUS TCP/IP, EtherNet/IP, CANopen, EtherCAT  
I/O 모듈: 디지털 및 아날로그 I/O, 온도 모듈, 단일 축 모션 제어 모듈

Basic

현장의 필수 요구 사항을 충족하는 HMI

고성능 CPU, 필수 UI 요소, 400개 이상의 PLC 프로토콜, VNC 모니터링 등, 산업 자동화의 필수 요구 사항을 위한 기능을 제공합니다.

Standard

스마트 애플리케이션을 위한 향상된 기능의 HMI

cMT X Basic의 모든 기능을 지원할 뿐만 아니라 멀티미디어 및 모바일 모니터링 기능 등, 다양한 스마트 애플리케이션 기능을 제공합니다.

Advanced

다양한 현장에 적용할 수 있는 최적의 스마트 HMI

cMT X Basic, Standard의 모든 기능을 지원하고 SQL 데이터 연결, OPC UA 서버와 같은 IIoT 프로토콜 기능이 지원되어 플랫폼 간의 데이터를 쉽게 통합할 수 있어 다양한 현장에 완벽하게 적용할 수 있는 최적화된 HMI입니다.

Headless HMI

크기의 제한을 받지 않는 모듈형 HMI

Headless HMI 시리즈는 화면이 없는 모듈형으로 HDMI 포트 출력 또는 APP을 통해 다양한 크기의 모니터를 사용할 수 있습니다.



## cMT X Series Model Types

cMT X 시리즈는 기능에 따라 제품을 세분화하여 제공합니다.

○○Naming Convention○○

cMT 3 07 2 X \*

Series Name	Category	Screen Size	Ethernet Port	Others
cMT X	1 Basic	07 7" / 12 12.1"	2 Dual Ethernet Ports	H High Resolution
	2 Standard	09 9.7" / 15 15"	6 Single Ethernet Port	T Wide Temperature
	3 Advanced	10 10.1" / 16 15.6"	8 Dual Ethernet Ports	P Projected Capacitive Touch (PCAP)

## Advanced Model

### Specifications

	Model	cMT3072X2	cMT3072XH2	cMT3072XHT	cMT3092X
Display	Display	7" TFT	7" WVA	7" WVA	9.7" TFT
	Resolution	800 x 480	1024 x 600	1024 x 600	1024 x 768
	Brightness (cd/ m <sup>2</sup> )	400	450	450	350
	Contrast Ratio	800: 1	800: 1	800: 1	500:1
	Backlight Type	LED	LED	LED	LED
	Backlight Life Time	>30,000 hrs.	>30,000 hrs.	>30,000 hrs.	>30,000 hrs.
	Colors	16.7M	16.7M	16.7M	262K
	LCD Viewing Angle (T/B/L/R)	80/60/80/80	85/85/85/85	85/85/85/85	60/70/70/70
	Pixel Pitch (mm)	0.1926(H) x 0.179(V)	0.1506(H) x 0.1432(V)	0.1506(H) x 0.1432(V)	0.192(H) x 0.192(V)
	Touch Panel	Type	4-wire Resistive Type	4-wire Resistive Type	4-wire Resistive Type
Accuracy		Active Area Length(X)±2%, Width(Y)±2%	Active Area Length(X)±2%, Width(Y)±2%	Active Area Length(X)±2%, Width(Y)±2%	Active Area Length(X)±2%, Width(Y)±2%
Memory	Flash	4 GB	4 GB	4 GB	4 GB
	RAM	1 GB	1 GB	1 GB	1 GB
Processor		Quad-core RISC	Quad-core RISC	Quad-core RISC	Quad-core RISC
I/O Port	USB Host	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1
	Ethernet	LAN 1: 10/100 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1
	COM Port	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus Con.B: COM1 RS-232 4W, COM3 RS-232 2W*
	CAN Bus	Yes	Yes	Yes	Yes
	Audio Output	N/A	N/A	N/A	Built-in Mono Speaker
RTC		Built-in	Built-in	Built-in	Built-in
Power	Input Power	24±20%VDC	24±20%VDC	24±20%VDC	24±20%VDC
	Power Isolation	Built-in	Built-in	Built-in	Built-in
	Power Consumption	820mA@24VDC	820mA@24VDC	820mA@24VDC	1A@24VDC
	Voltage Resistance	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)
	Isolation Resistance	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC
Specification	PCB Coating	Yes	Yes	Yes	Yes
	Enclosure	Plastic	Plastic	Aluminum	Plastic
	Dimensions WxHxD	200.3 x 146.3 x 35.0 mm	200.3 x 146.3 x 35.0 mm	200.4 x 146.5 x 36.0 mm	260.6 x 203.1 x 44.5 mm
	Panel Cutout	192 x 138 mm	192 x 138 mm	192 x 138 mm	250 x 192 mm
	Weight	Approx. 0.6 kg	Approx. 0.6 kg	Approx. 0.8 kg	Approx. 1 kg
Environment	Mount	Panel mount	Panel mount	Panel mount	Panel mount, VESA mount 75 x 75 mm
	Protection Structure	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	NEMA4 / IP66 Compliant Front Panel	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)
	Operating Temperature	0° ~ 55° C (32° ~ 131° F)	0° ~ 55° C (32° ~ 131° F)	-20° ~ 55° C (-4° ~ 131° F)	0° ~ 50° C (32° ~ 122° F)
	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)
Vibration Endurance		10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
Certificate	CE	CE marked	CE marked	CE marked	CE marked
	UL	cULus Listed	cULus Listed	cULus Listed	cULus Listed
Software	Weincloud	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Built-in) Dashboard (Optional)
	CODESYS	Optional	Optional	Optional	Optional

\*Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

 Wide viewing angle

## Advanced Model

### Dimensions

	cMT3072X2	cMT3072XH2	cMT3072XHT	cMT3092X
Front View				
Rear View				
Bottom View				
Cutout Dimensions				



## Advanced Model

### Specifications

Model		cMT3108XH	cMT3108XP	cMT3102X	cMT3152X	cMT3162X	
Display	Display	10.1" WVA	10.1" WVA	10.1" TFT	15" WVA	15.6" WVA	
	Resolution	1280 x 800	1280 x 800	1024 x 600	1024 x 768	1920 x 1080	
	Brightness (cd/ m <sup>2</sup> )	500	425	350	350	300	
	Contrast Ratio	800:1	800:1	500:1	2500:1	800:1	
	Backlight Type	LED	LED	LED	LED	LED	
	Backlight Life Time	>50,000 hrs.	>50,000 hrs.	>50,000 hrs.	>70,000 hrs.	>30,000 hrs.	
	Colors	16.7M	16.7M	16.7M	16.2M	16.2M	
	LCD Viewing Angle (T/B/L/R)	89/89/89/89	89/89/89/89	70/70/80/80	88/88/88/88	89/89/89/89	
	Pixel Pitch (mm)	0.1695 (H) x 0.1695 (V)	0.1695 (H) x 0.1695 (V)	0.2175 (H) x 0.2088 (V)	0.297(H) x 0.297(V)	0.17925(H) x 0.17925(V)	
	Touch Panel	Type	4-wire Resistive Type	Tempered Glass, Capacitive Type Hardness Scale 7H	4-wire Resistive Type	Tempered Glass, Capacitive Type Hardness Scale 7H	Tempered Glass, Capacitive Type Hardness Scale 7H
Accuracy		Active Area Length(X)±2%, Width(Y)±2%	N/A	Active Area Length(X)±2%, Width(Y)±2%	N/A	N/A	
Memory	Flash	4 GB	4 GB	4 GB	4 GB	4 GB	
	RAM	1 GB	1 GB	1 GB	1 GB	1 GB	
Processor		Quad-core RISC	Quad-core RISC	Quad-core RISC	Quad-core RISC	Quad-core RISC	
I/O Port	SD Card Slot	N/A	N/A	N/A	SD/SDHC	N/A	
	USB Host	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	
	Ethernet	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1
		LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1
	WiFi	M02 WiFi Expansion Module (Optional)	M02 WiFi Expansion Module (Optional)	M02 WiFi Expansion Module (Optional)	N/A	N/A	
	COM Port	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W, CAN Bus
		Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*
	RS-485 Dual Isolation	N/A	N/A	N/A	Yes	N/A	
	CAN Bus	Yes	Yes	Yes	Yes	Yes	
	Audio Output	Built-in Mono Speaker	Built-in Mono Speaker	N/A	Built-in Mono Speaker Audio Line Out - 3.5 mm jack x 1	Built-in Mono Speaker	
RTC		Built-in	Built-in	Built-in	Built-in		
Power	Input Power	24±20%VDC	24±20%VDC	24±20%VDC	24±20%VDC	24±20%VDC	
	Power Isolation	Built-in	Built-in	Built-in	Built-in	Built-in	
	Power Consumption	700mA@24VDC	700mA@24VDC	1A@24VDC	1.3A@24VDC	1.3A@24VDC	
	Voltage Resistance	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	
	Isolation Resistance	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	
Specification	PCB Coating	Yes	Yes	Yes	Yes	Yes	
	Enclosure	Plastic	Plastic	Plastic	Front bezel: Plastic, Rear Enclosure: Aluminum	Front bezel: Plastic, Rear Enclosure: Aluminum	
	Dimensions WxHxD	266 x 196 x 40 mm	266 x 196 x 42.7 mm	271 x 213 x 38 mm	366 x 293 x 51.5 mm	400 x 263 x 27.6 mm	
	Panel Cutout	255 x 185 mm	255 x 185 mm	260 x 202 mm	352 x 279 mm	384 x 247 mm	
	Weight	Approx. 1.1 kg	Approx. 1.1 kg	Approx. 1.2 kg	Approx. 2.85 kg	Approx. 1.6 kg	
	Mount	Panel mount, VES A mount 75 x 75 mm	Panel mount, VES A mount 75 x 75 mm	Panel mount, VES A mount 75 x 75 mm	Panel mount, VES A mount 75 x 75 mm	Panel mount, VES A mount 100 x 100 mm	
Environment	Protection Structure	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	NEMA4 / IP66 Compliant Front Panel	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	NEMA4 / IP66 Compliant Front Panel	NEMA4 / IP66 Compliant Front Panel	
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	
	Operating Temperature	0° ~ 55° C (32° ~ 131° F)	0° ~ 55° C (32° ~ 131° F)	0° ~ 50° C (32° ~ 122° F)	0° ~ 50° C (32° ~ 122° F)	0° ~ 50° C (32° ~ 122° F)	
	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	
Certificate	CE	CE marked	CE marked	CE marked	CE marked	CE marked	
	UL	cULus Listed	cULus Listed	cULus Listed	cULus Listed	cULus Listed	
Software	Weincloud	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Built-in) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	
	CODESYS	Optional	Optional	Optional	Optional	Optional	

\*Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

Vibration Alert Capacitive Type Wide viewing angle

## Advanced Model

### Dimensions

cMT3108XH	cMT3108XP	cMT3102X	cMT3152X	cMT3162X
Front View	Front View	Front View	Front View	Front View
Rear View	Rear View	Rear View	Rear View	Rear View
Bottom View	Bottom View	Bottom View	Bottom View	Bottom View
Cutout Dimensions	Cutout Dimensions	Cutout Dimensions	Cutout Dimensions	Cutout Dimensions

## Standard Model

### Specifications



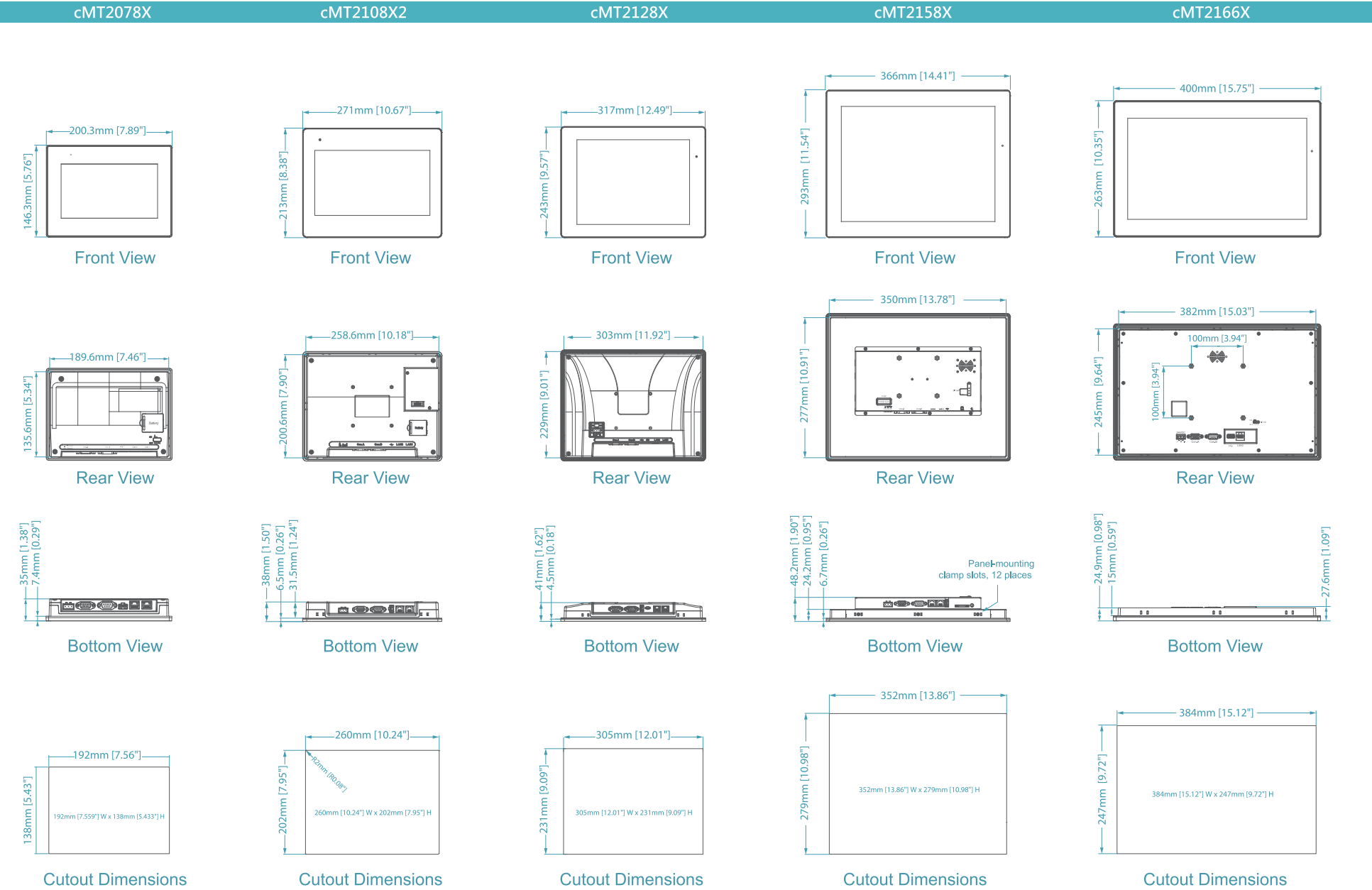
Model		cMT2078X	cMT2108X2	cMT2128X	cMT2158X	cMT2166X	
Display	Display	7" TFT	10.1" TFT	12.1" WVA	15" WVA	15.6" WVA	
	Resolution	800 x 480	1024 x 600	1024 x 768	1024 x 768	1920 x 1080	
	Brightness (cd / m <sup>2</sup> )	400	350	500	350	300	
	Contrast Ratio	800:1	500:1	1000:1	2500:1	800:1	
	Backlight Type	LED	LED	LED	LED	LED	
	Backlight Life Time	>30,000 hrs.	>50,000 hrs.	>30,000 hrs.	>70,000 hrs.	>30,000 hrs.	
	Colors	16.7M	16.7M	16.7M	16.2M	16.2M	
	LCD Viewing Angle (T/B/L/R)	80/60/80/80	70/70/80/80	89/89/89/89	88/88/88/88	89/89/89/89	
	Pixel Pitch (mm)	0.1926(H) x 0.179(V)	0.2175 (H) x 0.2088 (V)	0.240 (H) x 0.240 (V)	0.297(H) x 0.297(V)	0.17925(H) x 0.17925(V)	
	Touch Panel	Type	4-wire Resistive Type	4-wire Resistive Type	4-wire Resistive Type	4-wire Resistive Type	Tempered Glass, Capacitive Type Hardness Scale 7H
Accuracy		Active Area Length(X)±2%, Width(Y)±2%	Active Area Length(X)±2%, Width(Y)±2%	Active Area Length(X)±2%, Width(Y)±2%	Active Area Length(X)±2%, Width(Y)±2%	N/A	
Memory	Flash	4 GB	4 GB	4 GB	4 GB	4 GB	
	RAM	1 GB	1 GB	1 GB	1 GB	1 GB	
Processor		Quad-core RISC	Quad-core RISC	Quad-core RISC	Quad-core RISC	Quad-core RISC	
I/O Port	SD Card Slot	N/A	N/A	Micro SD x 1	SD/SDHC	N/A	
	USB Host	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	USB 2.0 x 1	
	Ethernet	LAN 1: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1	10/100 Base-T x 1
		LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	LAN 2: 10/100 Base-T x 1	
	WiFi	N/A	M02 WiFi Expansion Module (Optional)	N/A	N/A	N/A	
	COM Port	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W	Con.A: COM1 RS-485 2W/4W, COM3 RS-485 2W
		Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*	Con.B: COM1 RS-232 4W, COM3 RS-232 2W*
RS-485 Dual Isolation	N/A	N/A	Yes	N/A	N/A		
Audio Output	N/A	N/A	N/A	Built-in Mono Speaker Audio Line Out - 3.5 mm jack x 1	Built-in Mono Speaker		
RTC		Built-in	Built-in	Built-in	Built-in	Built-in	
Power	Input Power	24±20%VDC	24±20%VDC	24±20%VDC	24±20%VDC	24±20%VDC	
	Power Isolation	Built-in	Built-in	Built-in	Built-in	Built-in	
	Power Consumption	820mA@24VDC	1A@24VDC	1.2A@24VDC	1.3A@24VDC	0.9A@24VDC	
	Voltage Resistance	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	
	Isolation Resistance	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	
Specification	PCB Coating	Yes	Yes	Yes	Yes	Yes	
	Enclosure	Plastic	Plastic	Plastic	Aluminum	Front bezel: Plastic, Rear Enclosure: Aluminum	
	Dimensions WxHxD	200.3 x 146.3 x 35.0 mm	271 x 213 x 38 mm	317 x 243 x 41 mm	366 x 293 x 48.2mm	400 x 263 x 27.6 mm	
	Panel Cutout	192 x 138 mm	260 x 202 mm	305 x 231 mm	352 x 279 mm	384 x 247 mm	
	Weight	Approx. 0.6 kg	Approx. 1.2 kg	Approx. 1.7 kg	Approx. 2.74 kg	Approx. 1.6 kg	
	Mount	Panel mount	Panel mount, VESA mount 75 x 75 mm	Panel mount, VESA mount 75 x 75 mm	Panel mount, VESA mount 75 x 75 mm	Panel mount, VESA mount 100 x 100 mm	
Environment	Protection Structure	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	NEMA4 / IP66 Compliant Front Panel	UL Type 4X (indoor use only) / NEMA4 / IP66 Compliant Front Panel	NEMA4 / IP66 Compliant Front Panel	
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	
	Operating Temperature	0° ~ 55° C (32° ~ 131° F)	0° ~ 50° C (32° ~ 122° F)	0° ~ 55° C (32° ~ 131° F)	0° ~ 50° C (32° ~ 122° F)	0° ~ 50° C (32° ~ 122° F)	
	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	
Certificate	CE	CE marked	CE marked	CE marked	CE marked	CE marked	
	UL	cULus Listed	cULus Listed	cULus Listed	cULus Listed	cULus Listed	
Software	Weincloud	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	
	CODESYS	Optional	Optional	Optional	Optional	N/A	

\*Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

Capacitive Type Wide viewing angle

## Standard Model

### Dimensions



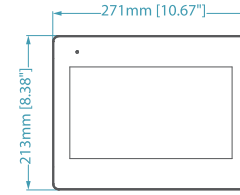
## Basic Model



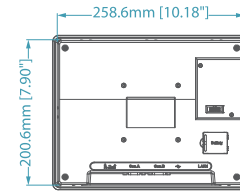
### Specifications & Dimensions

Model		cMT1106X
Display	Display	10.1" TFT
	Resolution	1024 x 600
	Brightness (cd/ m <sup>2</sup> )	350
	Contrast Ratio	500:1
	Backlight Type	LED
	Backlight Life Time	>50,000 hrs.
	Colors	16.7M
	LCD Viewing Angle (T/B/L/R)	70/70/80/80
Pixel Pitch (mm)	0.2175 (H) x 0.2088 (V)	
Touch Panel	Type	4-wire Resistive Type
	Accuracy	Active Area Length(X)±2%, Width(Y)±2%
Memory	Flash	4 GB
	RAM	1 GB
Processor		Quad-core RISC
I/O Port	USB Host	USB 2.0 x 1
	Ethernet	10/100 Base-T x 1
	WiFi	M02 WiFi Expansion Module (Optional)
	COM Port	Con.A: COM2 RS-485 2W/4W, COM3 RS-485 2W Con.B: COM1 RS-232 4W, COM3 RS-232 2W* MPI is not supported.
RTC		Built-in
Power	Input Power	24±20%VDC
	Power Isolation	Built-in
	Power Consumption	720mA@24VDC
	Voltage Resistance	500VAC (1 min.)
	Isolation Resistance	Exceed 50MΩ @ 500VDC
Specification	PCB Coating	Yes
	Enclosure	Plastic
	Dimensions WxHxD	271 x 213 x 38 mm
	Panel Cutout	260 x 202 mm
	Weight	Approx. 1.2 kg
Mount	Panel mount, VESA mount 75 x 75 mm	
Environment	Protection Structure	NEMA4 / IP66 Compliant Front Panel
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)
	Operating Temperature	0° ~ 50° C (32° ~ 122° F)
	Relative Humidity	10% ~ 90% (non-condensing)
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
	Certificate	CE
Software	Weincloud	EasyAccess 2.0 (Optional) Dashboard (Optional)
	CODESYS	N/A

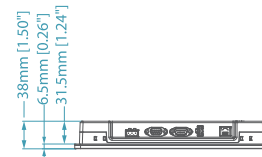
## cMT1106X



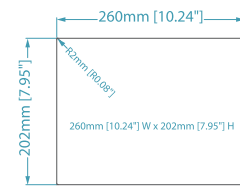
Front View



Rear View



Bottom View



Cutout Dimensions

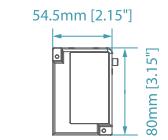
## Accessories



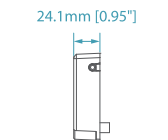
### Specifications & Dimensions

Model		M02
Network	WiFi	IEEE 802.11 b/g/n 802.11b: max 19.76 dBm 802.11g: max 19.93 dBm 802.11n: max 19.99 dBm
	I/O Port	SMA Female Connector: 1 Male Connector to HMI: 1
Power	Input Power	5VDC
	Power Consumption	900mA@5VDC (powered by HMI)
	Voltage Resistance	500VAC (1min.)
	Isolation Resistance	Exceed 50MΩ @ 500VDC
Specification	PCB Coating	N/A
	Enclosure	Plastic
	Dimensions WxHxD	54.5 x 80 x 24.1 mm
	Weight	Approx. 80 g
	Mount	HMI connector + diagonal screw fastening
Environment	Protection Structure	M02: IP20 Compliant Antenna: IP66 Compliant
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)
	Operating Temperature	0° ~ 50° C (32° ~ 122° F)
	Relative Humidity	10% ~ 90% (non-condensing)
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
	Certificate	CE
	UL	cULus Listed

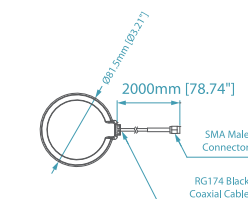
## M02



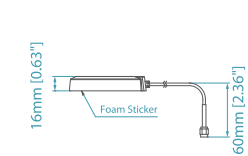
Front View



Side View



Antenna



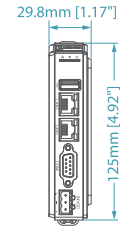
\*Only Tx & Rx (no RTS/CTS) may be used for COM1 RS-232 when COM3 RS-232 is also used.

## Headless HMI

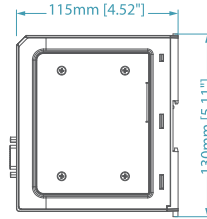
### Specifications & Dimensions

Model		cMT-FHDX-820	cMT-SVRX-820 / 822	
Memory	Flash	4 GB	4 GB	
	RAM	1 GB	1 GB	
Processor		Quad-core RISC		
I/O Port	SD Card Slot	N/A	Micro SD x1	
	USB Host	USB 2.0 x 1	USB 2.0 x 1	
Ethernet	Ethernet	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1	LAN 1: 10/100/1000 Base-T x 1 LAN 2: 10/100 Base-T x 1	
	COM Port	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	
HDMI	HDMI	Customizable (max. resolution 1920 x 1080)	N/A	
	Recommended Resolutions (Please use these recommended screen resolutions to avoid compatibility issues.)	720x480 / 720x576 / 800x600 1024x768 / 1280x720 1366x768 / 1920x1080	N/A	
Audio Output	HDMI Audio Output	N/A		
RTC		Built-in		
Power	Input Power	24±20%VDC	24±20%VDC	
	Power Isolation	Built-in	Built-in	
	Power Consumption	850mA@24VDC	850mA@24VDC	
	Voltage Resistance	500VAC (1 min.)	500VAC (1 min.)	
	Isolation Resistance	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	
Specification	PCB Coating	Yes	Yes	
	Enclosure	Plastic	Plastic	
	Dimensions WxHxD	29.8 x 130 x 115 mm	29.8 x 130 x 115 mm	
	Weight	Approx. 0.24 kg	Approx. 0.24 kg	
	Mount	35 mm DIN rail mounting	35 mm DIN rail mounting	
Environment	Protection Structure	IP20	IP20	
	Storage Temperature	-20° ~ 60° C (-4° ~ 140° F)	-20° ~ 60° C (-4° ~ 140° F)	
	Operating Temperature	0° ~ 50° C (32° ~ 122° F)	0° ~ 50° C (32° ~ 122° F)	
	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	
Certificate	CE	CE marked	CE marked	
	UL	cULus Listed	cULus Listed	
Software	Weincloud	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Built-in) Dashboard (Optional)
	CODESYS	Optional	Optional	

### cMT-FHDX-820



Front View



Side View



Top View

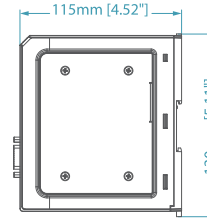


Bottom View

### cMT-SVRX-820 / 822



Front View



Side View



Top View



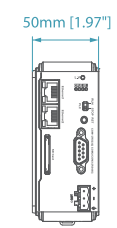
Bottom View

## Other Model

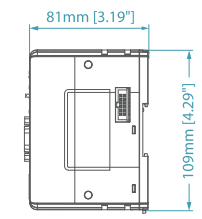
### Specifications & Dimensions

Model		cMT-CTRL01	cMT-SVR-100 / 102	cMT-SVR-200 / 202	
Memory	Flash	4 GB	256 MB	256 MB	
	RAM	512 MB	256 MB	256 MB	
	Data, Memory, Code	3 MB	N/A	N/A	
	Retain area	16 KB (every minute) (Kept after reboots)	N/A	N/A	
	Persistent area	16 KB (every minute) (Kept after downloads)	N/A	N/A	
File system	8MB	N/A	N/A		
Processor		Dual-Core 32 bits RISC 1GHz	32-bit RISC 600MHz	32-bit RISC 600MHz	
I/O Port	SD Card Slot	SD/SDHC	SD/SDHC	SD/SDHC	
	USB Host	N/A	USB 2.0 x 1	USB 2.0 x 1	
Ethernet	Ethernet	Ethernet 1: 10/100/1000 Base-T x 1 Ethernet 2: 10/100 Base-T x 1	10/100/1000 Base-T x 2	10/100/1000 Base-T x 1	
	WiFi	N/A	N/A	IEEE 802.11 b/g/n 802.11b: max 18.01 dBm 802.11g: max 11.02 dBm 802.11n: max 12.20 dBm	
COM Port	COM Port	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 COM2: RS-485 2W/4W COM3: RS-485 2W	COM1: RS-232 2W COM2: RS-485 2W/4W COM3: RS-485 2W	
	Local bus	iBus	N/A	N/A	
CODESYS	Protocol	Modbus TCP/IP Master, EtherCAT Master	N/A	N/A	
RTC	RTC	Built-in	Built-in	Built-in	
Power	Input Power	24±20%VDC	24±20%VDC	10.5~28VDC	
	Power Isolation	Built-in	Built-in	Built-in	
	Current for Internal Bus	Max 2A@5VDC	N/A	N/A	
	Current Consumption	550mA@5VDC	N/A	N/A	
	Power Consumption	Nominal 310mA@24VDC	230mA@24VDC	1A@12VDC ; 450mA@24VDC	
Specification	Voltage Resistance	500VAC (1 min.)	500VAC (1 min.)	500VAC (1 min.)	
	Isolation Resistance	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	Exceed 50MΩ @ 500VDC	
	PCB Coating	Yes	Yes	Yes	
	Enclosure	Plastic	Plastic	Plastic	
	Dimensions WxHxD	50 x 109 x 81 mm	27 x 130 x 115 mm	27 x 130 x 115 mm	
Environment	Weight	Approx. 0.24 kg	Approx. 0.18 kg	Approx. 0.18 kg	
	Mount	35 mm DIN rail mounting	35 mm DIN rail mounting	35 mm DIN rail mounting	
	Protection Structure	IP20	IP20	IP20	
	Storage Temperature	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	
	Operating Temperature	-10° ~ 50° C (14° ~ 122° F)	-20° ~ 55° C (-4° ~ 131° F)	-10° ~ 55° C (14° ~ 131° F)	
Certificate	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	10 to 25Hz (X, Y, Z direction 2G 30 minutes)	
	CE	CE marked	CE marked	CE marked	
	UL	cULus Listed	cULus Listed	cULus Listed	
	Software	Weincloud	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Optional) Dashboard (Optional)	EasyAccess 2.0 (Built-in) Dashboard (Optional)
CODESYS	CODESYS	Built-in	N/A	N/A	

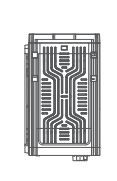
### cMT-CTRL01



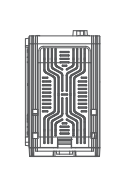
Front View



Side View

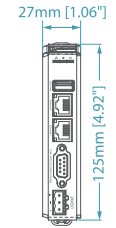


Top View

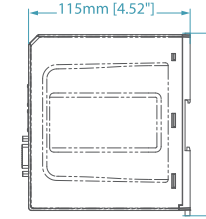


Bottom View

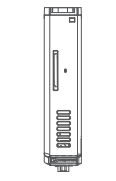
### cMT-SVR-100 / 102



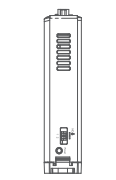
Front View



Side View

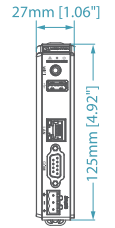


Top View

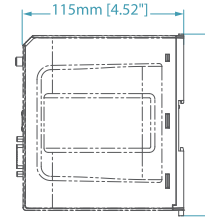


Bottom View

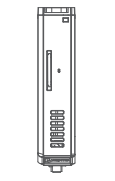
### cMT-SVR-200 / 202



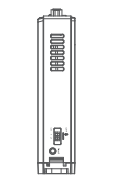
Front View



Side View



Top View



Bottom View

## Communication Interface

### iR Series Specifications



Model		iR-ETN	iR-COP	iR-ECAT
Expansion I/O module	Number of Bus Terminals	Depends on Power Consumption	Depends on Power Consumption	Depends on Power Consumption
	Digital Input Point	Max. 256	Max. 256	Max. 256
	Digital Output Point	Max. 128	Max. 128	Max. 128
	Analog Input Channel	Max. 64	Max. 64	Max. 64
	Analog Output Channel	Max. 64	Max. 64	Max. 64
Data Transfer Rate		10/100 Mbps	50k~1 Mbps	100 Mbps
Max. Number of TCP/IP Connections		8 Connections	-	-
Protocol		Modbus TCP/IP Server, EtherNet/IP adapter	CANopen Slave	EtherCAT Slave
Isolation		Network to Logic Isolation : Yes	CAN bus Isolation : Yes	Network to Logic Isolation : Yes
Power	Power Supply	24 VDC (-15%/+20%)	24 VDC (-15%/+20%)	24 VDC (-15%/+20%)
	Power Consumption	Nominal 100mA@24VDC	Nominal 100mA@24VDC	Nominal 100mA @ 24VDC
	Current for Internal Bus	Max 2A@5VDC	Max 2A@5VDC	Max 2A@5VDC
	Current Consumption	220mA@5VDC	170mA@5VDC	270mA@5VDC
	Power Isolation	Yes	Yes	Yes
	Back-up Fuse	≤ 1.6A Self-recovery	≤ 1.6A Self-recovery	≤ 1.6A Self-recovery
	PCB Coating	Yes	Yes	Yes
	Enclosure	Plastic	Plastic	Plastic
	Dimensions WxHxD	27 x 109 x 81 mm	27 x 109 x 81 mm	27 x 109 x 81 mm
	Weight	Approx. 0.15 kg	Approx. 0.15 kg	Approx. 0.15 kg
Environment	Mount	35mm DIN rail mounting	35mm DIN rail mounting	35mm DIN rail mounting
	Protection Structure	IP20	IP20	IP20
	Storage Temperature	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)	-20° ~ 70° C (-4° ~ 158° F)
	Operating Temperature	0° ~ 55° C (32° ~ 131° F)	0° ~ 55° C (32° ~ 131° F)	0° ~ 55° C (32° ~ 131° F)
	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)
Certification	EMC Immunity	Conforms to EN 55032: 2012+AC: 2013, Class A EN 61000-6-4: 2007+A1:2011 EN 55024: 2010+A1: 2015 EN 61000-6-2:2005	Conforms to EN 55032: 2012+AC: 2013, Class A EN 61000-6-4: 2007+A1:2011 EN 55024: 2010+A1: 2015 EN 61000-6-2:2005	Conforms to EN 55032: 2012+AC: 2013, Class A EN 61000-6-4: 2007+A1:2011 EN 55024: 2010+A1: 2015 EN 61000-6-2:2005
	UL	cULus Listed	cULus Listed	cULus Listed



## Communication Interface

### Specifications

Model		iR-ETN40R
Expansion I/O Module	No. of Bus Terminals	Depends on Power Consumption
	Digital Input Point	Max. 224
	Digital Output Point	Max. 112
	Analog Input Channel	Max. 64
	Analog Output Channel	Max. 64
Data Transfer Rate		10/100 Mbps
Max. Number of TCP/IP Connections		8 connections
Protocol		Modbus TCP Server, EtherNet/IP adapter
Isolation		Network to Logic Isolation : Yes
No. of Ports		1
Digital Output	Total Number of Outputs	16
	Output Logic	Relay
	Output Voltage	250VAC/30VDC
	Output Current	2A per channel (Max 8A)
Digital Input		
Total Number of Inputs		24
General Input	Input Logic	Sink or Source
	Number of Inputs	20
	Logic 1 Input Voltage	15~28 VDC
	Logic 0 Input Voltage	0~5 VDC
	Input Impedance	5.6 KΩ
	Number of Inputs	4
High-speed Input	Input Logic	SINK INPUT (PNP)
	Logic 1 Input Voltage	15~28 VDC
	Logic 0 Input Voltage	0~5 VDC
	Max. Input Frequency	20KHz
	Input Impedance	3 KΩ
Isolation		Input: Yes, optical isolation, Output: Yes, electromagnetic isolation
Power	Power Supply	24 VDC (-15%/+20%)
	Power Consumption	Nominal 255mA @ 24VDC
	Current for Internal Bus	Max 2A @ 5VDC
	Current Consumption	520mA @ 5VDC
	Power Isolation	Yes
	Back-up Fuse	≤ 1.6A Self-recovery
	PCB Coating	Yes
	Enclosure	Plastic
	Dimensions WxHxD	64x 109 x 81 mm
	Weight	Approx. 0.27 kg
Specification	Mount	35mm DIN rail mounting
	Protection Structure	IP20
	Storage Temperature	-20° ~ 70° C (-4° ~ 158° F)
	Operating Temperature	-10° ~ 60° C (14° ~ 140° F)
	Relative Humidity	10% ~ 90% (non-condensing)
Environment	EMC Immunity	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005
	UL	cULus Listed

## Digital Input/Output

### Specifications

Model	iR-DI16-K	iR-DM16-P	iR-DM16-N	iR-DQ16-P	iR-DQ16-N	iR-DQ08-R	
<b>Input Logic</b>	Sink or Source	Sink or Source	Sink or Source	N/A	N/A	N/A	
<b>Number of Inputs</b>	16	8	8	0	0	0	
<b>Output Logic</b>	N/A	Source	Sink	Source	Sink	Relay	
<b>Number of Outputs</b>	0	8	8	16	16	8	
<b>Current Consumption</b>	83mA@5VDC	130mA@5VDC	130mA@5VDC	196mA@5VDC	205mA@5VDC	220mA@5VDC	
<b>HIGH Level Input Voltage</b>	15~28VDC	15~28VDC	15~28VDC	N/A	N/A	N/A	
<b>LOW Level Input Voltage</b>	0~5 VDC	0~5 VDC	0~5 VDC	N/A	N/A	N/A	
<b>Output Voltage</b>	N/A	11~28VDC	11~28VDC	11~28VDC	11~28VDC	250VAC/ 30VDC	
<b>Output Current</b>	N/A	0.5A per channel (Max 4A)	0.5A per channel (Max 4A)	0.5A per channel (Max 4A)	0.5A per channel (Max 4A)	2A per channel (Max 8A)	
<b>Isolation</b>	Input: Optical Isolation Output: N/A	Input: Optical Isolation Output: Optical Isolation	Input: Optical Isolation Output: Optical Isolation	Input: N/A Output: Optical Isolation	Input: N/A Output: Optical Isolation	Input: N/A Output: Electromagnetic Isolation	
<b>Specification</b>	Enclosure	Plastic					
	Dimensions WxHxD	27 x 109 x 81 mm					
	Weight	Approx. 0.12 kg					Approx. 0.13 kg
	Mount	35mm DIN rail mounting					
<b>Environment</b>	Protection Structure	IP20					
	Storage Temperature	-20° ~ 70° C (-4° ~ 158° F)					
	Operating Temperature	0° ~ 55° C (32° ~ 131° F)					
	Relative Humidity	10% ~ 90% (non-condensing)					
<b>Connection</b>	Cross-section	AWG 28-16					AWG 24-16
<b>Certification</b>	EMC Immunity	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005					
	UL	cULus Listed					

## Analog Input/Output

### Specifications

Model	iR-AI04-VI	iR-AM06-VI	iR-AQ04-VI
<b>Number of Analog Inputs</b>	4 (±10V/ ±20mA)	4 (±10V/ ±20mA)	0
<b>Number of Analog outputs</b>	0	2 (±10V/ ±20mA)	4 (±10V/ ±20mA)
<b>Current Consumption</b>	70mA@5VDC	70mA@5VDC	65mA@5VDC
<b>Analog Power Supply</b>	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)
<b>Specification</b>	PCB Coating	Yes	
	Enclosure	Plastic	
	Dimensions WxHxD	27 x 109 x 81 mm	
	Weight	Approx. 0.12 kg	
	Mount	35mm DIN rail mounting	
<b>Environment</b>	Protection Structure	IP20	
	Storage Temperature	-20° ~ 70° C (-4° ~ 158° F)	
	Operating Temperature	0° ~ 55° C (32° ~ 131° F)	
	Relative Humidity	10% ~ 90% (non-condensing)	
<b>Connection</b>	Cross-section	AWG 28-16	
<b>Certification</b>	EMC Immunity	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005	
	UL	cULus Listed	

## Temperature

### Specifications

Model	iR-AI04-TR
<b>Number of Input Channels</b>	4 (RTD/Thermocouple)
<b>Current Consumption</b>	65mA@5VDC
<b>Analog Power Supply</b>	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)
<b>Specification</b>	PCB Coating
	Yes
	Enclosure
	Plastic
	Dimensions WxHxD
	27 x 109 x 81 mm
	Weight
	Approx. 0.12 kg
	Mount
	35mm DIN rail mounting
<b>Environment</b>	Protection Structure
	IP20
	Storage Temperature
	-20° ~ 70° C (-4° ~ 158° F)
	Operating Temperature
	0° ~ 55° C (32° ~ 131° F)
	Relative Humidity
	10% ~ 90% (non-condensing)
<b>Connection</b>	Cross-section
<b>Certification</b>	AWG 28-16
	EMC Immunity
	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005
	UL
	cULus Listed

## Motion Control

### Specifications

Model	iR-PU01-P
<b>Input Logic</b>	Digital input/ output
<b>Number of Inputs</b>	Sink Input
<b>Output Logic</b>	Differential input/ output
<b>Number of Outputs</b>	Differential Input
<b>HIGH Level Input Voltage</b>	3 (A/B/Z phase )
<b>LOW Level Input Voltage</b>	Differential Output
<b>Input current</b>	2(A/B phase )
<b>Input Impedance</b>	-
<b>Indicators</b>	-
<b>Output Voltage</b>	Meets the Requirements of ANSI Standards TIA/EIA-485-A
<b>Output Current</b>	-
<b>Max. input frequency</b>	Meets the Requirements of ANSI Standards TIA/EIA-485-A
<b>Max. Output frequency</b>	-
<b>Number of Axis</b>	2MHz
<b>Specification</b>	2MHz
	1- Axis
	PCB Coating
	Yes
	Enclosure
	Plastic
	Dimensions WxHxD
	27 x 109 x 81 mm
	Weight
	Approx. 0.12 kg
	Mount
	35mm DIN rail mounting
<b>Environment</b>	Protection Structure
	IP20
	Storage Temperature
	-20° ~ 70° C (-4° ~ 158° F)
	Operating Temperature
	0° ~ 55° C (32° ~ 131° F)
	Relative Humidity
	10% ~ 90% (non-condensing)
<b>Connection</b>	Cross-section
<b>Certification</b>	AWG 28-16
	EMC Immunity
	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005
	UL
	cULus Listed

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