

#### cMT2078Xv2-CODESYS | Advanced HMI Series









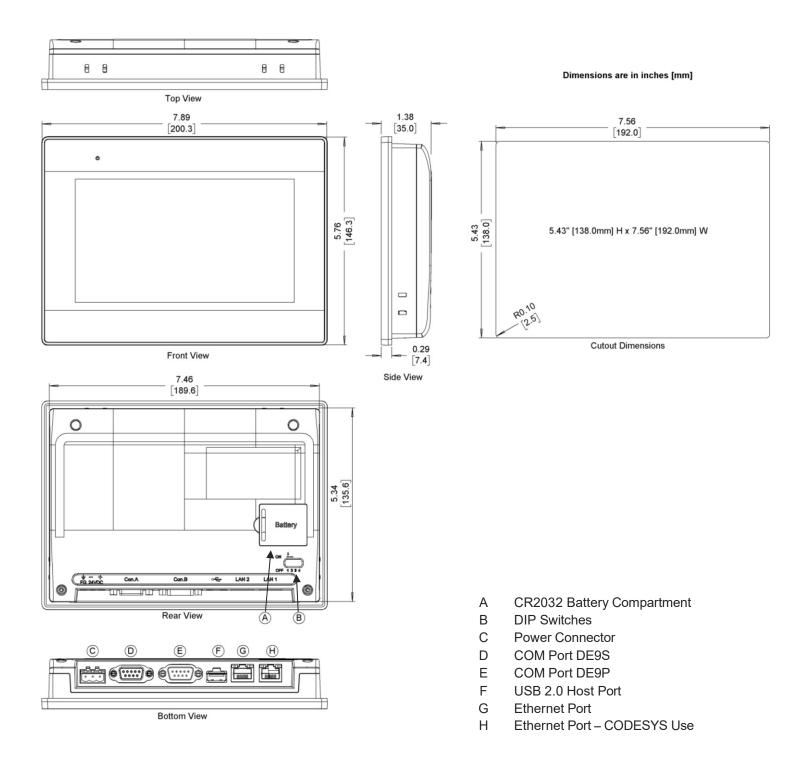


- 7.0" Touchscreen HMI with CODESYS
  - Quad Core processor allows for the HMI project and PLC project to run on its own processor
  - PLC logic programmed with CODESYS
  - Add remote I/O for increased functionality
  - High Speed Screen Update
  - **Built-in Edge Gateway Function**

System	CPU	Quad-Core RISC, 1.5 GHz
System	Memory (RAM)	1 GB
	Memory (Flash)	4 GB
	RTC	Built-in
I/O Ports	Serial	1 x DE9P COM1: RS-232, COM3: RS-232*
		1 x DE9S COM2: RS-485 2 or 4 wire, COM3: RS-485 2 wires
	LAN	2 x 10/100 Base-T RJ-45**
	CANbus	N/A
	USB Host	1 x USB 2.0
	USB Client	N/A
	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI <sup>®</sup>	N/A
	SD Card Slot	N/A
Display	Display Type	7" TFT LCD
	Size (W x H)	6.02 x 3.39 inches [153 x 86 mm]
	Max. Resolution	800 x 480
	Max. Colors	16.7 M
	Luminance (cd/m²)	400
	View Angle (H°/V°)	160/140
	Contrast Ratio	800:1
	Backlight Lifetime (Hours)	30,000+
	Type	4-wire resistive touch
Touch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
Electrical	Input Voltage	24 ± 20% VDC
	Input Current	820mA @ 24 VDC (Max)
	Input Power	19.7 W (Max)
	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩ at 500 VDC
Mechanical	Enclosure	Plastic, Charcoal Grey
	PCB Coating	Yes
	Dimensions (W x H x D)	7.89 x 5.76 x 1.38 inches [200.3 x 146.3 x 35 mm]
	Panel Cutout (W x H)	7.56 x 5.43 inches [192.0 x 138.0 mm]
	Net Weight	Approx. 1.32 lbs. [0.6 kg]
	Mounting	Panel mounting
Environmental	Operating Temperature	32° ~ 131°F [0° ~ 55°C]
	Storage Temperature	-4° ~ 140°F [-20° ~ 60°C]
	Relative Humidity	10% ~ 90% (non-condensing)
	Altitude (Air Pressure)	Below 3,000 meters (70.1 kPa)
	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	UL Type 4X (indoor use only), NEMA 4, IP66 compliant front panel
	Certifications	cULus, CE, RoHS
		/Access 2.0 (optional), IIoT Ready, MQTT, Sparkplug B, VNC, CMTViewer, WebView
Software	LDI 10 (V0.03.02 of later), Easy	Access 2.0 (optional), not fready, wight, oparching b, vivo, Givit viewer, webview
	*Only Tx and Rx may be used for COM1 RS-232 while COM3 RS-232 is in use.	
Notes	**Activation of CODESYS will monopolize LAN 1 port for exclusive CODESYS use. This action is irreversible.	
	CODESYS <sup>®</sup> is a trademark of CODESYS GmbH. Specifications subject to change without notice	



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#### Why Buy A Maple HMI

In addition to our powerful and affordable hardware, we'll also continue to support your company long after a sale. Wide product selection, large in-stock inventory, outstanding product warranty, free technical support and software, and in-house repairs with quick turnaround times, Maple Systems has your business covered.



# Add Remote IO for PLC Functionality

Select Maple Advanced and High-Performance HMIs have a sleek hardware platform that runs both an HMI application created with our free HMI software and PLC logic programmed with CODESYS; each on its own dedicated processor. Unlike the typical multicore set up, where the operating system scheduler is responsible for allocating tasks to each processor, these HMIs have a hard separation between cores. One core is dedicated to the HMI application, the other to executing PLC logic of the CODESYS project. This ensures taxing graphics processing operations will not interfere with deterministic real time control tasks executing on the other processor.

After selecting your HMI, choose from a suite of easy to use powerful I/O modules to connect to your field equipment. We offer a complete set of I/O modules which can be combined with one of our communication couplers to create a remote I/O block.

### Remote Access and the IIoT

Remote access is the ability to access an HMI or connected device, from another device, at any time, and from anywhere. With our free HMI software and supported hardware solutions, you have the freedom to access the HMI, and all its data and applications, from another device and control it as if you were standing in front of it. Our Advanced and High-Performance HMIs support cMT Viewer, WebView, Web Streaming, and EasyAccess 2.0 and are designed to make accessing your HMI and data fast and streamlined.

Let us serve as your guide, making it an easy process to join the next evolution of automated control. Our Advanced and High-Performance HMIs can act as an access point enabling operating equipment on the plant floor to connect to information technologies of the Industrial Internet of Things (IIoT). With our IIoT solutions, that are already included in the EBPro software, we can help you achieve better access to invaluable data and open a world of possibilities for your business. Read more about our <u>IIoT solutions</u>.

#### **Build your SCADA**

We offer all the components you need to create your own unique level of supervisory data acquisition and control, from the simplest stand-alone machine to sophisticated multi-device networked production line(s), all the way to enterprise-level operations and IIoT functionalities leveraging cloud connectivity.

Our products can help you standardize communications between devices, gluing different systems together for one source to your SCADA. No need to redesign your entire application. Keep the components that are already working for you, just add Maple Systems components to grow your abilities to supervise, control, and acquire data.

### **Incredible Functionality Out of the Box**

- Easily and quickly create the project with functional objects including numeric object, lamp object, combobutton, alarms, and recipes
- Pick and place objects, pictures, and shapes
- Import/export recipes
- · Create trend display, graphs, XY plots, and pie charts
- · Add passwords and security levels
- Assign communication (PLC) drivers easily and more with our Free HMI software

Additionally our HMIs support remote access solutions with VNC, MQTT, and OPC UA. For additional features see our High-Performance HMI series.



## **User Friendly HMI Configuration Software**

Because designing the layout of screens and user-interface (UI) of the HMI is typically where most of the development time is spent, we've made our Free HMI configuration software easy to use.

- Import tags feature
- Tools to diagnose and monitor PLC to HMI connection
- Debugging tools
- Pre-built libraries
- Off-line and on-line simulation

These are just a few of the ways our software makes creating your project easier. We also have controller information sheets, cable drawings, sample projects, Getting Started Guides, and videos/tutorials available in our support center 24/7.





Matsushita

### Programmable Logic Controller (PLC) Connectivity

With over 300 PLC & Controller communication protocols, these HMIs will easily integrate with your preferred PLC brands, including:

Allen-Bradley
Siemens
Omron
Emerson
GE
Panasonic
Mitsubishi
...and many more

Panel Mount HMI Feature Overview			
With few exceptions, all our Standard HMIs support (this covers all the HMI prefix models, ex: HMI5043L/LB, HMI5070L/LB):	With few exceptions, all our Advanced HMIs support (this covers all the cMT2xxx series):	With few exceptions, all our High Performance HMIs support (this covers all the cMT3xxx series HMIs):	
Alarm & Event Messages Animation - Flow Block	Alarm & Event Messages Animation - Flow Block	Alarm & Event Messages	
ASCII Characters	ASCII Characters	Animation - Flow Block ASCII Characters	
Bar Graphs	Bar Graphs	Bar Graphs	
Combo Button	Combo Button	Combo Button	
Data Logging and Sampling	Data Logging and Sampling	Data Logging and Sampling	
Date / Time	Date / Time	Date / Time	
Dynamic Drawing	Dynamic Drawing	Dynamic Drawing	
Dynamic Scale	Dynamic Scale	Dynamic Scale	
EasyAccess 2.0	EasyAccess 2.0	EasyAccess 2.0	
EasyWatch	EasyWatch	EasyWatch	
Enhanced Security Mode	Enhanced Security Mode	Enhanced Security Mode	
Event Alarm Log	Event Alarm Log	Event Alarm Log	
File Browser	File Browser	File Browser	
Grid Display	Grid Display	Grid Display	
Languages (Up to 24) Libraries	Languages (Up to 24) Libraries	Languages (Up to 24)	
Macros	Macros	Macros	
Meters & Gauges	Meters & Gauges	Meters & Gauges	
Modbus	Modbus Modbus	Modbus	
Objects (Grouping, Layering, Aligning, Flip)	Objects (Grouping, Layering, Aligning, Flip)	Objects (Grouping, Layering, Aligning, Flip)	
Off-line / On-line Simulation	Off-line / On-line Simulation	Off-line / On-line Simulation	
OPC UA Client	OPC UA Client	OPC UA Client	
Operation Log	Operation Log	Operation Log	
Pass-Through Mode	Pass-Through Mode	Pass-Through Mode	
Picture Object	Picture Object	Picture Object	
Picture Viewer	Picture Viewer	Picture Viewer	
Pie Chart	Pie Chart	Pie Chart	
PLC Tag Embedded in Project	PLC Tag Embedded in Project	PLC Tag Embedded in Project	
Project Password	Project Password	Project Password	
Recipes	Recipes	Recipes	
Remote Access	Remote Access	Remote Access	
Scheduler Security Levels (Ephanead)	Scheduler Security Levels (Ephanead)	Scheduler Security Levels (Enhanced)	
Security Levels (Enhanced) System Setting Editor	Security Levels (Enhanced) System Setting Editor	Security Levels (Enhanced) System Setting Editor	
Table	Table	Table	
Text Object	Text Object	Text Object	
Timer Object	Timer Object	Timer Object	
Trend Display (Graphs)	Trend Display (Graphs)	Trend Display (Graphs)	
User-Defined Start-Up Screen	User-Defined Start-Up Screen	User-Defined Start-Up Screen	
Utility Manager	Utility Manager	Utility Manager	
VNC Server	VNC Server	VNC Server	
XY Plot	XY Plot	XY Plot	
Email (I)	Email	Email	
Macro Windows Open / Cycle / Close (I)	Macro Windows Open / Cycle / Close	Macro Windows Open / Cycle / Close	
MQTT (I)	MQTT Serving Table	MQTT	
String Table (I)	String Table	String Table Time Synchronization	
Time Synchronization (I) USB Tethering	Time Synchronization USB Tethering	Time Synchronization USB Tethering	
VNC Viewer (I)	VNC Viewer	VNC Viewer	
THE HEREI (1)	IP Camera	IP Camera	
	USB Camera	USB Camera	
	Animation (Objects, Word Lamp, GIFs, Moving Shape)	Animation (Objects, Word Lamp, GIFs, Moving Shape)	
	BACnet	BACnet	
	CANbus	CANbus	
	cMT Diagnoser	cMT Diagnoser	
	cMT Viewer Support	cMT Viewer Support	
	CODESYS (2)	CODESYS	
	Media Player	Media Player	
	·	MOTT ALL LICON	
	MQTT - Advanced JSON	MQTT - Advanced JSON	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming WebView	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming WebView Barcode Scanner (Android Camera)	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming WebView Barcode Scanner (Android Camera) Database Server	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming WebView Barcode Scanner (Android Camera) Database Server File Transfer Protocol (FTP)	
	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming	MQTT - AWS IoT, Sparkplug B, Azure IoT Hub PDF Reader Web Streaming WebView Barcode Scanner (Android Camera) Database Server	

This table is for illustration only and subject to change. Always check the software to see if a feature is supported in your specific hardware.

<sup>(1)</sup> Not supported in the B Series (HMI5040B, 5070B, 5100B)

<sup>(2)</sup> Not supported on the cMT2166X