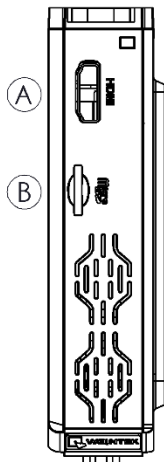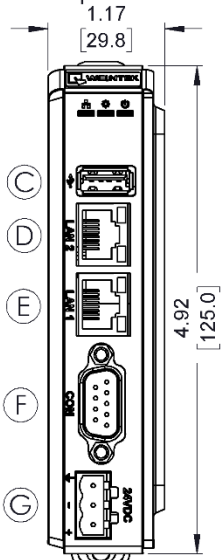# High-Performance Headless HMI with CODESYS

- Quad Core processor allows for the HMI project and PLC project to run on its own processor
- PLC logic programmed with CODESYS
- Enhanced Graphics, Animation, and Security
- High Speed Screen Updates
- Email Alarm Notification
- Recipe, Data Logging, Pie Charts
- Linear & Circular Trend Graphs
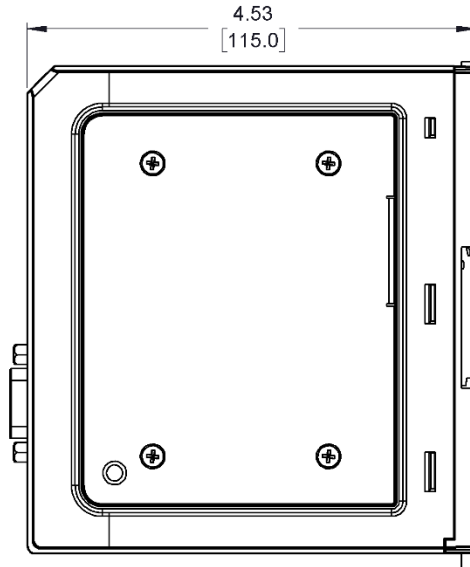- HDMI® Port Provides Native 1080P Resolution

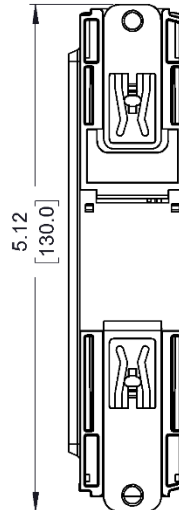| System	CPU	Quad Core RISC
	Memory (RAM)	1 GB
	Memory (Flash)	4 GB
	RTC	Built-in
I/O Ports	Serial	1 x DE9P COM1: RS-232, COM2: RS-485 2 or 4 wire, COM3: RS-485 2 wire
	LAN	1 x 10/100 Base-T RJ-45, 1 x GbE RJ-45**
	CANbus	N/A
	USB Host	1 x USB 2.0
	USB Client	N/A
	Audio	HDMI® audio output
	Video	N/A
	Wi-Fi	N/A
	HDMI®	1 HDMI® port, 1080P (1920 x 1080) native resolution, customizable*
	SD Card Slot	1x Micro SD
Electrical	Input Voltage	24 ± 20% VDC
	Input Current	850mA @ 24 VDC
	Input Power	20.4W
	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)	1.17 x 5.12 x 4.53 inches [29.8 x 130 x 115 mm]
	Net Weight	Approx. 0.53 lbs. [0.24 kg]
	Mounting	35 mm DIN rail
Environmental	Operating Temperature	32° ~ 122°F [-0° ~ 50°C]
	Storage Temperature	-4° ~ 140°F [-20° ~ 60°C]
	Relative Humidity	10% ~ 90% (non-condensing)
	Altitude (Air Pressure)	Below 3,000 meters (70.1kPa)
	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP20
	Certifications	cULus, CE, RoHS
Software		EBPro (v6.09.02 or later), EasyAccess 2.0 (Optional), CODESYS® (Optional), SQL, MQTT, OPCUA Client, OPCUA Server VNC, cMT Viewer, EasyWeb 2.0, WebView
Notes		* Additional Custom Resolution Options: • 720 x 480 • 720 x 576 • 800 x 600 • 1024 x 768 • 1280 x 720 • 1366 x 768 **Activation of CODESYS will monopolize LAN 1 port for exclusive CODESYS use. This action is irreversible. CODESYS® IS A TRADEMARK OF CODESYS GmbH. Specifications subject to change without notice

Top View

1.17
[29.8]

4.53
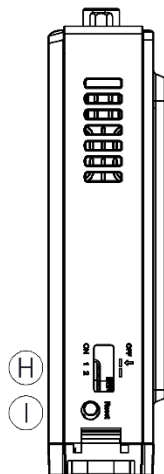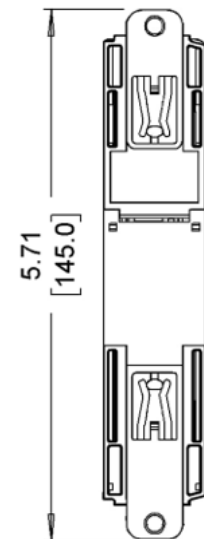[115.0]

4.92
[125.0]

5.12
[130.0]

5.71
[145.0]

Front View

Side View

Rear View

Bottom View

A   HDMI® Port
B   1x Micro SD Card Slot
C   USB Host Port
D   Ethernet Port
E   Gigabit Ethernet Port
F   COM Port DE9P
G   Power Connector
H   Dip Switches
I   Reset Button

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.
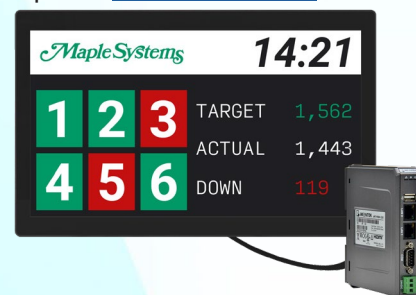
Remote Access and the IIoT

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. The enhanced features in our High-Performance HMIs support SQL Database Servers, Web Browser, OPC UA Server, and FTP, in addition to cMT Viewer, WebView, Web Streaming, and EasyAccess 2.0 and are designed to make accessing your HMI and data fast and streamlined.

Our 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 IIoT solutions.

Create an Andon Station

The size of your HMI screen is no longer restricted – you can now display your real-time production data on a large, wall-mounted Status Display Station or Andon, easily visible from any plant floor location.

Our HDMI-enabled unit is a powerful HMI with no display that converts any compatible TV or monitor into an Andon or Status Display Station. All HMI data and screens are displayed on an HDMI®-compatible monitor. This model divides the traditional all-in-one HMI into two, distinct parts: A data-processing unit and a separate visual display. See our compatible Industrial Monitors.

Incredible Functionality Out of the Box

- Easily and quickly create the project with functional objects including numeric object, lamp object, combo-button, 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 Advanced 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.

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

Allen-Bradley ABB babcock™

BALDOR Danfoss SIEMENS

MITSUBISHI Parker

TOSHIBA YASKAWA Koyo

Matsushita

Headless HMIs Feature Overview

Standard Headless HMI	Advanced Headless HMI	High-Performance Headless HMI
Alarm & Event Messages	Alarm & Event Messages	Alarm & Event Messages
Animation - Flow Block	Animation - Flow Block	Animation - Flow Block
ASCII Characters	ASCII Characters	ASCII Characters
BACnet	BACnet	BACnet
Bar Graphs	Bar Graphs	Bar Graphs
Barcode Scanner (Android Camera)	Barcode Scanner (Android Camera)	Barcode Scanner (Android Camera)
cMT Diagnoser	cMT Diagnoser	cMT Diagnoser
cMT Viewer Support	cMT Viewer Support	cMT Viewer Support
Combo Button	Combo Button	Combo Button
Data Logging and Sampling	Data Logging and Sampling	Data Logging and Sampling
Database Server	Database Server	Database Server
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
Email	Email	Email
Enhanced Security Mode	Enhanced Security Mode	Enhanced Security Mode
Event Alarm Log	Event Alarm Log	Event Alarm Log
File Transfer Protocol (FTP)	File Transfer Protocol (FTP)	File Transfer Protocol (FTP)
Grid Display	Grid Display	Grid Display
Languages (Up to 24)	Languages (Up to 24)	Languages (Up to 24)
Libraries	Libraries	Libraries
Macro Windows Open / Cycle / Close	Macro Windows Open / Cycle / Close	Macro Windows Open / Cycle / Close
Macros	Macros	Macros
Meters & Gauges	Meters & Gauges	Meters & Gauges
Modbus	Modbus	Modbus
MQTT	MQTT	MQTT
MQTT - Advanced JSON	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
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
OPC UA Server	OPC UA Server	OPC UA Server
Operation Log	Operation Log	Operation Log
Pass-Through Mode	Pass-Through Mode	Pass-Through Mode
Picture Object	Picture Object	Picture Object
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	Scheduler	Scheduler
Security Levels (Enhanced)	Security Levels (Enhanced)	Security Levels (Enhanced)
SQL Database Server Integration	SQL Database Server Integration	SQL Database Server Integration
String Table	String Table	String Table
System Setting Editor	System Setting Editor	System Setting Editor
Table	Table	Table
Text Object	Text Object	Text Object
Time Synchronization	Time Synchronization	Time Synchronization
Timer Object	Timer Object	Timer Object
Trend Display (Graphs)	Trend Display (Graphs)	Trend Display (Graphs)
USB Tethering	USB Tethering	USB Tethering
Utility Manager	Utility Manager	Utility Manager
XY Plot	XY Plot	XY Plot
	CODESYS	CODESYS
	WebView	WebView
		Create a Andon/Status Display
		VNC Viewer
		VNC Server
		User-Defined Start-Up Screen
		Picture Viewer
		File Browser
		IP Camera
		USB Camera
		Media Player
		PLC Web Browser
		PDF Reader
		Web Streaming

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.