# Maple Systems Basic HMI Series

Your Experts in Automation Control Solutions





# **Table of Contents**

03: Company Profile

04: Overview: Basic Series of HMI's

05: Features

06: HMI5043BN-4.3"

08: HMI5043B-4.3"

10: HMI5070BN - 7"

12: HMI5070B-7"

14: HMI5100BN-10.1"

16: HMI5100B - 10.1"

18: Support



## **Company Profile**

#### Maple Systems Specializes in Operator Interface Solutions

At Maple, we are committed to quality, reliability, and affordability. Our products deliver the quality you deserve, the reliability you demand, with a value that will drive your growth. Whether your customers are residential, commercial, or industrial; whether you create custom automation and integration solutions or manufacture products that require 21st century control, Maple Systems will add value and improve your user experience.

#### **We Make Machine Control Easy**

With modern touchscreens, unrivaled value and functionality, combined with intuitive software, Maple Systems provides a versatile offering of products to complement your machine's design:

- Touchscreen HMIs
- HMI + PLC
- Remote (Smart) HMIs
- Light Industrial Panel PCs
- Heavy Industrial Panel PCs
- Text-Based OITs

#### **Best-Value Products**

Our goal is to offer high-quality control solutions at affordable prices. We strive for continuous product improvement by being experts in our field, employing the latest technologies, and ensuring that every product is fully tested and inspected before leaving our facility. Paired with an outstanding support team and comprehensive technical website, you'll see that Maple Systems truly is *your* industrial control solution.









## **Overview**

Maple Systems Basic HMIs are a great option for OEMs and end users looking for basic machine control that doesn't require UL or other enhanced software features offered by our Advanced HMI and Smart HMI products.

With hardware features comparable to Maple's Advanced and Smart HMIs. the Basic HMI series is a cost effective way for companies to upgrade their machines at a minimal cost.

All Basic HMI models are IP65/NEMA 4, CE, and RoHS certified.

## **Benefits**

# **Basic HMI Series**

Maple Systems Basic HMI series offers a great solution for organizations focused on cost-driven and OEM-related projects.

Maple Basic HMIs provide standard HMI features and solid performance at the lowest price. You'll also receive Maple's outstanding and trusted technical support.

- 4.3 ", 7", and 10.1" models
- Low HMI investment to replace push buttons and toggle switches
- Basic data handling HMI functions meet the project's needs
- Utilizes core HMI features in our easy-to-use EZwarePlus software
- UL certification is not required on the HMI.
- Ethernet and non-Ethernet models available
- Support of over 250 protocols
- Remote HMI programming is possible on models with a USB client port by using the project downloader utility.
- USB host port can be used by developers to upgrade project applications remotely by putting revisions onto a USB drive and sending it to the remote site for updates.

**Maple Systems Basic HMI** Series offers the perfect solution for OEMs.

**Maple Systems offers** the industry's best value in control products.



#### **Features**

# See the Possibilities: Maple Basic HMIs

Affordably priced, our Basic Series of HMIs offers essential functionality at a cost that everyone can appreciate.

#### What is a Basic HMI?

Maple HMIs take the place of LEDs, On/Off buttons, switches or any mechanical device that performs an operator interface function. Eliminating of these mechanical devices is possible because the HMI can provides a visual representation of the devices on its LCD screen, yet performs the same functions. An HMI can streamline manufacturing processes by centralizing all functions of each button into one location.

#### **Benefits**

The greatest advantage of an HMI is the user-friendliness of the graphical interface, which contains color coding that allows for easy identification (for example: red for trouble). Pictures and icons allow for fast recognition. HMIs can reduce product manufacturing costs, and potentially increase profit margins, and lower production costs. Maple Basic HMIs are extremely innovative and provide technological advantages such as converting hardware to software, elimination of mouse and keyboard allowing kinesthetic computer/human interaction. Maple Basic HMIs have high resolution displays offering numerous color options.

One of the most convenient features of a Maple System HMI is the ability to personalize the interface. Our Basic HMIs can fully support very complex applications, with multiple screens and several routines running. The actual interface's design should be optimized for specific applications, and consider the capabilities of the typical users, as well as the environmental aspects such as noise, lighting, dust, vision, and technological curves.

#### **Basic HMI Features:**

- 16 MB History size limit
- 16 MB Project size limit
- Alarm & Event Messages (Import/ Export, Histories, Backup, Display)
- Analog Meters
- Animation (Objects, Word Lamp, GIFs, Moving Shape)
- Bar Graphs
- Build Data for USB Disk or SD Card Download
- Data Logging (Backup, Display, Historical Data Display)
- Data Sampling
- Design up to 1,999 Screens
- Display (Numeric, Set Word, Multi-state Switch, Set Bit, Toggle Switch, Combo Button)
- EasyConverter
- EasyDiagnoser
- EasyPrinter
- EasySimulator
- EasySystem Setting
- EasyWatch
- Event Alarm Log
- Graphics (Libraries, Bit Maps, Custom Libraries, Lamps, Pushbuttons, Multistate Switches)

- Grid Display
- Interlock, User Restriction, Safety Control
- Languages (up to 24 languages supported)
- Library Label
- Library Picture
- Library Shape
- Library Tag
- Macros
- Meters & Gauges
- Modbus
- Objects (Grouping, Layering, Aligning, Flip)
- Off-Line Simulation (on HMI)
- Pass-Through Mode
- Picture Object
- Picture/Shape Library embedded in project
- PLC tag embedded in Project
- Project Password
- Scheduler
- Security Levels (Simple)
- Siemens PLC Passthrough
- Text Object
- Timer Object
- Trend Display
- Trend Graphs
- USB Direct Download
- USB Disk Download
- User-defined start-up screen
- Utility Manager
- XY Plot









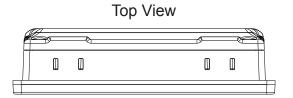


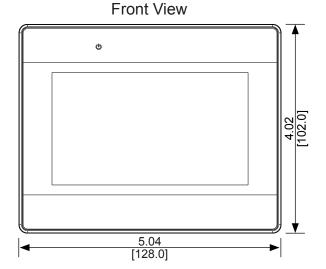
- 480 x 272 Pixel Resolution
- 600 MHz RISC CPU
- **128 MB RAM**
- 1 Serial Port + 1 Micro USB Port

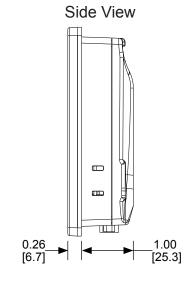
	CPU	32-bit RISC Cortex-A8, 600 MHz
System	Memory (RAM)	128 MB
	Memory (Flash)	128 MB
	RTC	Built-in
		1 x DE9P COM1: RS-232/RS-485 2 or 4 wire, COM3: RS-485 2 wire
	Serial Ports	N/A
	Ethernet	N/A
	CAN bus	N/A
	USB Host	N/A
I/O Ports	USB Client	1 x micro USB 2.0
	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI	N/A
	SD Card Slot	N/A
	Display Type	4.3" TFT LCD
	Size (W x H)	3.74 x 2.13 inches [95 x 54 mm]
	Resolution (pixels)	480 x 272
Display	Luminance (cd/m²)	400
	Contrast Ratio	500:1
	Max. Colors	16 M
	Backlight Lifetime (hours)	30,000+
Touch Screen	Туре	4-wire resistive touch
Touch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
	Input Voltage	24 ± 20% VDC
Electrical	Input Current	300 mA @ 24 VDC
Electrical	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩat 500 VDC
	Enclosure	Plastic, charcoal grey
	PCB Coating	N/A
Mechanical	Dimensions (W x H x D)	5.04 x 4.02 x 1.26 inches [128 x 102 x 32 mm]
	Weight	0.55 lbs. [0.25 kg]
	Mounting	Panel mounting
	Operating Temperature	32° ~ 122°F (0° ~ 50°C)
	Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)
Environmental	Relative Humidity	10% ~ 90% (non-condensing)
Environmental	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP65 compliant front panel, NEMA 4X indoor use only
	Certifications	CE, RoHS
Software	EZwarePlus (v5.07.01.150 o	r later)
Notes		

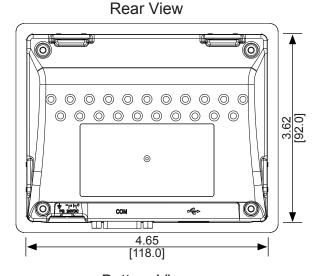
DS-HMI5040BN Rev 01

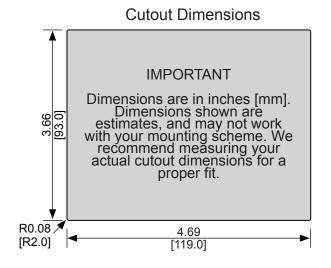
## Dimensional Outline: HMI5040BN

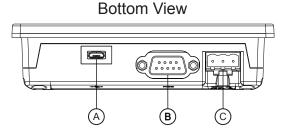












Dimensions are in inches [mm]

- A Micro USB 2.0 port
- **B** Com port DE9P
- © Power connector

DI-HMI5040BN Rev. 00, 04/07/2017











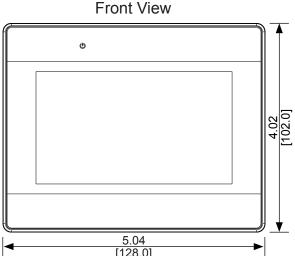
- 480 x 272 Pixel Resolution
- Cortex A8 600 MHz CPU
- Ethernet
- 1 Serial Port + 1 USB Port

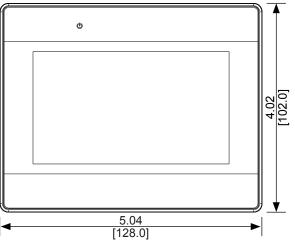
	CPU	32-bit RISC Cortex-A8, 600 MHz
	Memory (RAM)	128 MB
System	Memory (Flash)	128 MB
	RTC	Built-in
		1 x DE9P COM1: RS-232/RS-485 2 or 4 wire, COM 3: RS-485 2 wire
	Serial Ports	N/A
	Ethernet	1 x 10/100 Base-T
	CAN bus	N/A
	USB Host	1 x USB 2.0
I/O Ports	USB Client	N/A
	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI	N/A
	SD Card Slot	N/A
	Display Type	4.3" TFT LCD
	Size (W x H)	3.74 x 2.13 inches [95 x 54 mm]
	Resolution (pixels)	480 x 272
Display	Luminance (cd/m²)	400
	Contrast Ratio	500:1
	Max. Colors	16 M
	Backlight Lifetime (hours)	30,000+
T 10	Туре	4-wire resistive touch
Touch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
	Input Voltage	24 ± 20% VDC
et	Input Current	400 mA @ 24 VDC
Electrical	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩ at 500 VDC
	Enclosure	Plastic, charcoal grey
	PCB Coating	N/A
Mechanical	Dimensions (W x H x D)	5.04 x 4.02 x 1.26 inches [128 x 102 x 32 mm]
	Weight	0.55 lbs. [0.25 kg]
	Mounting	Panel mounting
	Operating Temperature	32° ~ 122°F (0° ~ 50°C)
	Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)
Engine and out of	Relative Humidity	10% ~ 90% (non-condensing)
Environmental	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP65 compliant front panel, NEMA 4X indoor use only
	Certifications	CE, RoHS
Software	EZwarePlus (v5.07.01.150 o	r later)
Notes		

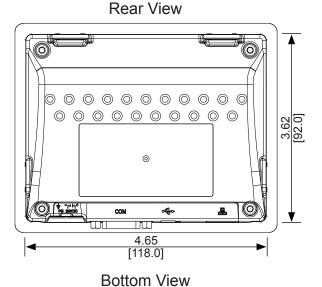
DS-HMI5040B Rev 01

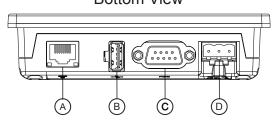
## Dimensional Outline: HMI5040B

## Top View





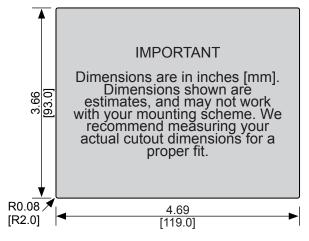




B USB 2.0 host port

Side View [25.3] [6.7]

#### **Cutout Dimensions**



Dimensions are in inches [mm]

© Com port DE9P

D Power connector

A Ethernet port







# HMI with 7" TFT LCD Display

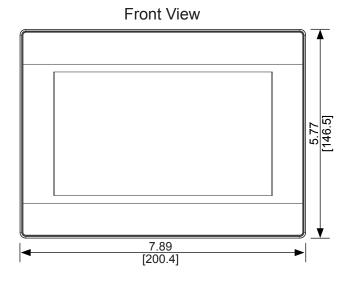
- 800 x 480 Pixel Resolution
- 600 MHz RISC CPU
- 1 Serial Port
- 1 USB Host Port + 1 Micro USB Port

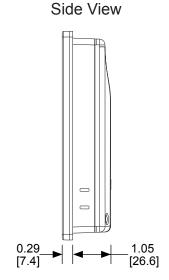
	CPU	32-bit RISC Cortex-A8, 600 MHz
	Memory (RAM)	128 MB
System	Memory (Flash)	128 MB
	RTC	Built-in
		1 x DE9P COM1: RS-232, COM2: RS-485 2 or 4 wire
	Serial Ports	N/A
	Ethernet	N/A
	CAN bus	N/A
	USB Host	1 x USB 2.0
I/O Ports	USB Client	1 x micro USB 2.0
	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI	N/A
	SD Card Slot	N/A
	Display Type	7" TFT LCD
	Size (W x H)	5.98 x 3.58 inches [152 x 91 mm]
	Resolution (pixels)	800 x 480
Display	Luminance (cd/m²)	300
	Contrast Ratio	500:1
	Max. Colors	16 M
	Backlight Lifetime (hours)	30,000+
Touch Screen	Туре	4-wire resistive touch
rouch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
	Input Voltage	24 ± 20% VDC
Electrical	Input Current	500 mA @ 24 VDC
Electrical	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩ at 500 VDC
	Enclosure	Plastic, charcoal grey
	PCB Coating	N/A
Mechanical	Dimensions (W x H x D)	7.87 x 5.79 x 1.34 inches [200 x 147 x 34 mm]
	Weight	1.15 lbs. [0.52 kg]
	Mounting	Panel mounting
	Operating Temperature	32° ~ 122°F (0° ~ 50°C)
	Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)
Environmental	Relative Humidity	10% ~ 90% (non-condensing)
Environmental	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP65 compliant front panel, NEMA 4X indoor use only
	Certifications	CE, RoHS
Software	EZwarePlus (v5.07.01.150 o	r later)
Notes		

DS-HMI5040BN Rev 01

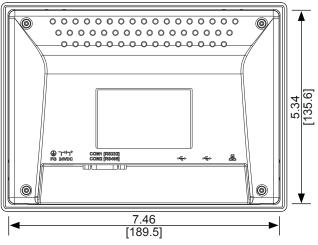
## Dimensional Outline: HMI5070BN

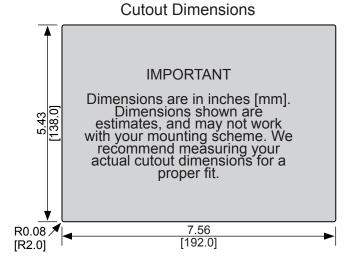
## Top View 0 0 0



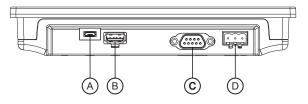








#### **Bottom View**



Dimensions are in inches [mm]

- A Micro USB 2.0 port
- B USB 2.0 host port
- © COM port DE9P
- D Power connector











# HMI with 7" TFT Display

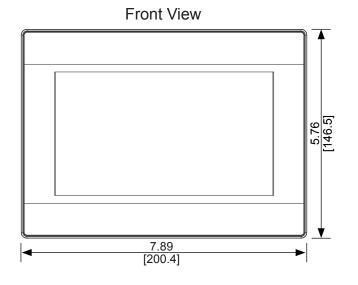
- 800 x 480 Pixel Resolution
- 600 MHz RISC CPU
- Ethernet
- 1 Serial Port

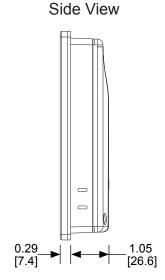
System	CPU	32-bit RISC Cortex-A8, 600 MHz
	Memory (RAM)	128 MB
	Memory (Flash)	128 MB
	RTC	Built-in
		1 x DE9P COM1: RS-232, COM2: RS-485 2 or 4 wire
	Serial Ports	N/A
	Ethernet	1 x 10/100 Base-T
	CAN bus	N/A
	USB Host	1 x USB 2.0
I/O Ports	USB Client	N/A
., 0 1 0110	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI	N/A
	SD Card Slot	N/A
	Display Type	7" TFT LCD
	Size (W x H)	5.98 x 3.58 inches [152 x 91 mm]
	Resolution (pixels)	800 x 480
Display	Luminance (cd/m²)	300
	Contrast Ratio	500:1
	Max. Colors	16 M
	Backlight Lifetime (hours)	30,000+
Tauch Carean	Туре	4-wire resistive touch
Touch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
	Input Voltage	10.5 ~ 28.0 VDC
Electrical	Input Current	500 mA @ 24 VDC
Electrical	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩat 500 VDC
	Enclosure	Plastic, charcoal grey
	PCB Coating	N/A
Mechanical	Dimensions (W x H x D)	7.87 x 5.79 x 1.34 inches [200 x 147 x 34 mm]
	Weight	1.15 lbs. [0.52 kg]
	Mounting	Panel mounting
	Operating Temperature	32° ~ 122°F (0° ~ 50°C)
	Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)
Environmental	Relative Humidity	10% ~ 90% (non-condensing)
Environmental	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP65 compliant front panel, NEMA 4X indoor use only
	Certifications	CE, RoHS
Software	EZwarePlus (v5.07.01.150 o	r later)
Notes		

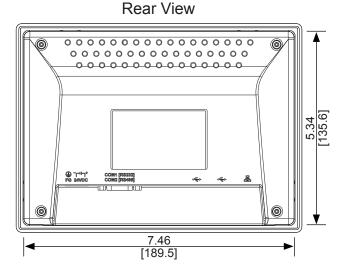
DS-HMI5070B Rev 01

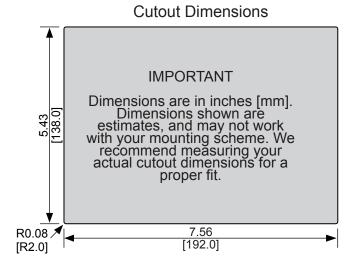
## Dimensional Outline: HMI5070B

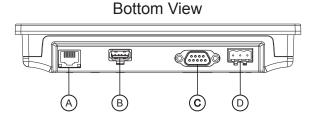
# Top View











Dimensions are in inches [mm]

- A Ethernet port
- B USB 2.0 host port
- © COM port DE9P
- D Power connector





# HMI with 10.1" TFT Display

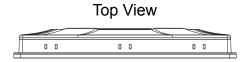


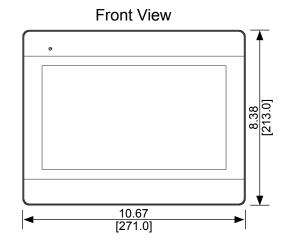
- 1024 x 600 Pixel Resolution
- 600 MHz RISC CPU
- 2 Serial Ports
- 1 USB Host Port + 1 Micro USB

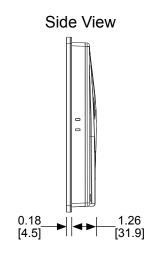
	CPU	32-bit RISC Cortex-A8, 600 MHz
System	Memory (RAM)	128 MB
	Memory (Flash)	128 MB
	RTC	Built-in
	-	1 x DE9P COM1: RS-232, COM3: RS-232*
	Serial Ports	1 x DE9S COM2: RS-485 2 or 4 wire, COM3: RS-485 2 wire
	Ethernet	N/A
	CAN bus	N/A
	USB Host	1 x USB 2.0
I/O Ports	USB Client	1 x micro USB 2.0
	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI	N/A
	SD Card Slot	N/A
	Display Type	10.1" TFT LCD
	Size (W x H)	8.70 x 5.12 inches [221 x 130 mm]
	Resolution (pixels)	1024 x 600
Display	Luminance (cd/m²)	400
	Contrast Ratio	600:1
	Max. Colors	16 M
	Backlight Lifetime (hours)	25,000+
Touch Screen	Туре	4-wire resistive touch
Touch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
	Input Voltage	24 ± 20% VDC
Electrical	Input Current	650 mA @ 24 VDC
Electrical	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩ at 500VDC
	Enclosure	Plastic, charcoal grey
	PCB Coating	N/A
Mechanical	Dimensions (W x H x D)	10.67 x 8.39 x 1.42 inches [271 x 213 x 36 mm]
	Weight	2.2 lbs. [1kg]
	Mounting	Panel mounting
	Operating Temperature	32° ~ 122°F (0° ~ 50°C)
	Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)
Environmental	Relative Humidity	10% ~ 90% (non-condensing)
Environmental	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP65 compliant front panel, NEMA 4X indoor use only
	Certifications	CE, RoHS
Software	EZwarePlus (v5.07.01.150 o	,
Notes	*RTS/CTS cannot be used for COM1 RS-232 while COM3 RS-232 is in use.	

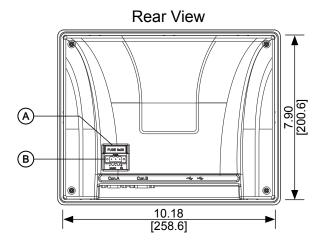
DS-HMI5100BN Rev 01

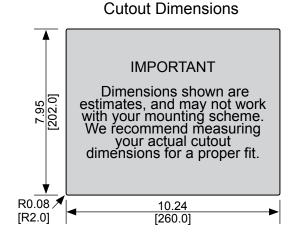
### Dimensional Outline: HMI5100BN

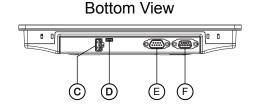












Dimensions are in inches [mm]

A Fuse

- B Power connector
- © USB 2.0 host port
- Micro USB 2.0 port

- **E** COM port DE9P
- © COM port DE9S





# HMI with 10.1" TFT Display

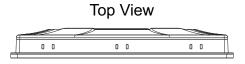


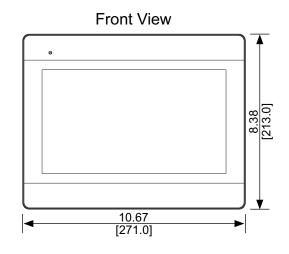
- 1024 x 600 Pixel Resolution
- 528 MHz RISC CPU
- 2 Serial Ports
- 1 USB Host Port

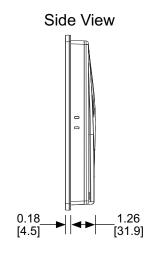
	CPU	ARM RISC, 528 MHz
Custom	Memory (RAM)	128 MB
System	Memory (Flash)	128 MB
	RTC	Built-in
	Ossis I Donto	1 x DE9P COM1: RS-232, COM3: RS-232*
	Serial Ports	1 x DE9S COM2: RS-485 2 or 4 wire, COM3: RS-485 2 wire
	Ethernet	1 x 10/100 Base-T
	CAN bus	N/A
	USB Host	1 x USB 2.0
I/O Ports	USB Client	N/A
	Audio	N/A
	Video	N/A
	Wi-Fi	N/A
	HDMI	N/A
	SD Card Slot	N/A
	Display Type	10.1" TFT LCD
	Size (W x H)	8.70 x 5.12 inches [221 x 130 mm]
	Resolution (pixels)	1024 x 600
Display	Luminance (cd/m²)	350
	Contrast Ratio	500:1
	Max. Colors	16 M
	Backlight Lifetime (hours)	20,000+
Touch Commen	Туре	4-wire resistive touch
Touch Screen	Active Area Accuracy	Length (X) ±2%, width (Y) ±2%
	Input Voltage	10.5 ~ 28.0 VDC
Planting	Input Current	1.3 A @ 12 VDC, 650 mA @ 24 VDC
Electrical	Power Isolation	Built-in
	Isolation Resistance	Exceed 50 MΩ at 500VDC
	Enclosure	Plastic, charcoal grey
	PCB Coating	N/A
Mechanical	Dimensions (W x H x D)	10.67 x 8.39 x 1.42 inches [271 x 213 x 36 mm]
	Weight	2.2 lbs. [1kg]
	Mounting	Panel mounting
	Operating Temperature	32° ~ 122°F (0° ~ 50°C)
	Storage Temperature	-4° ~ 140°F (-20° ~ 60°C)
Fusingumental	Relative Humidity	10% ~ 90% (non-condensing)
Environmental	Vibration Endurance	10 to 25 Hz (X, Y, Z direction, 2G, 30 minutes)
	Rating	IP65 compliant front panel, NEMA 4X indoor use only
	Certifications	CE, RoHS
Software	EZwarePlus (v5.07.01.150 o	r later)
	*RTS/CTS cannot be used fo	r COM1 RS-232 while COM3 RS-232 is in use.
Notes		

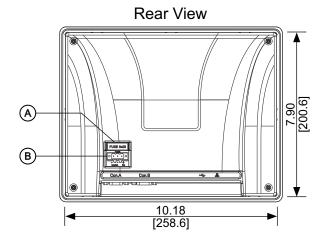
DS-HMI5100B Rev 01

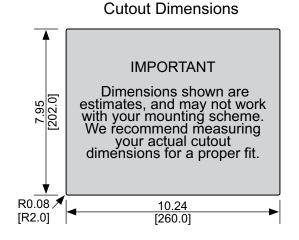
## Dimensional Outline: HMI5100B

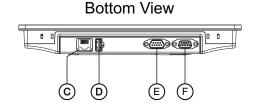












Dimensions are in inches [mm]

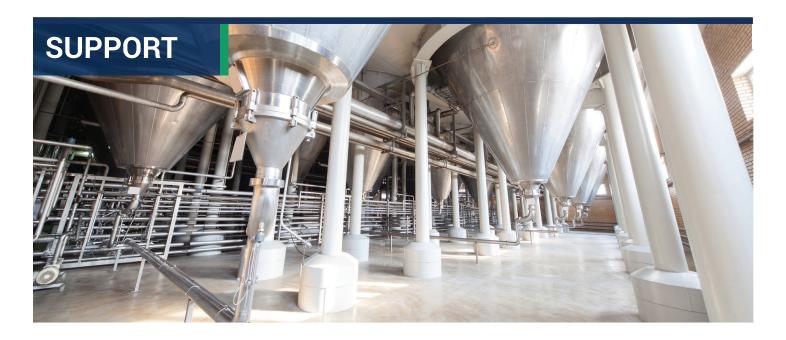
A Fuse

DI-HMI5100B

- **B** Power connector
  - 1 -- -- DEOC
- © Ethernet port
- D USB 2.0 host port

- **■** COM port DE9P
- © COM port DE9S

Rev. 00, 04/18/2017



## **Overview**

Maple Systems delivers the industry's best value in control products. For us, "best value" means high-quality products and outstanding service at a great price.

In addition, all products are backed by an outstanding team and complimentary technical support. How can we help meet *your* control needs?

# Support The Maple Standard

Maple Systems is honored to be recognized as a leader in the industrial controls marketplace. The Maple Standard represents our dedication to delivering high-quality control products and support to our valued customers. It is our promise to deliver quality, reliability, and value to help you achieve your business and process goals. We'll assist you every step of the way so you can get the job done on time and within budget.

#### We Make Partnerships Easy

At Maple Systems, our team strives to make doing business with us easy. We want you achieve a positive and enjoyable experience every time you use our products or services. When partnering with Maple Systems, know that our high-quality, competitively-priced products are backed by a dedicated team of professionals ready to assist you. We also lead our industry with:

- Over 30 years of industry experience
- · Rugged products that are built-to-last
- A team dedicated to providing complimentary support

For us, "best value" means providing high-quality control products and outstanding service at a great price.



## **Support**

# **Quality Products & Customer Service**

The Maple Standard represents our promise to deliver quality, reliability, and value to help you achieve your business and process goals.

#### **PLC Integration**

Maple Systems products integrate with more than 200 programmable controllers from the biggest names in PLCs including Allen Bradley, Schneider Electric, GE, Siemens, Mitsubishi, and Omron.



Communicate with PLCs, motion controllers, temperature controllers, embedded microcontrollers, and more.

#### **Intuitive Configuration Software**

Our configuration software is easy-to-use and offers great functionality. Enjoy alarm management, data logging, trending, batch recipes, and more. Experience greater functionality at a fraction of the cost compared to other industry models.

#### **Comprehensive Website and Support Center**

Our website's online support center provides customers with 24-hour answers to complex control automation needs. Explore tech notes, product specifications, sample projects, drivers, and











software upgrades. We also offer complimentary technical support to our customers via email and phone.

Visit us at www.maplesystems.com/support.

#### **Industry Accolades**

Maple Systems has received many favorable product reviews, readership, and editor awards from customers, media, and trade publications.



Our products have been featured in articles from major trade publications including Control Design, Control Engineering, and Packaging World. Maple Systems was also named one of America's fastest growing private companies for six years by Inc. 5000 Magazine.



#### **Reliability You Can Trust**

The Basic Series of HMI's comes with a one year warranty, free software upgrades, complimentry tech support, and fast repair turn around should you ever need it.

At Maple Systems, we want every customer to be a lifelong customer. This commitment has helped us consistently offer great value and support to customers at affordable prices. We hope you will be a part of our future as we continue to lead and innovate the industrial controls marketplace. After all, the most important ingredient in "The Maple Standard" is you.



Control
Solutions for
Every Industry



# **Your Industrial Control Solutions Source**

