

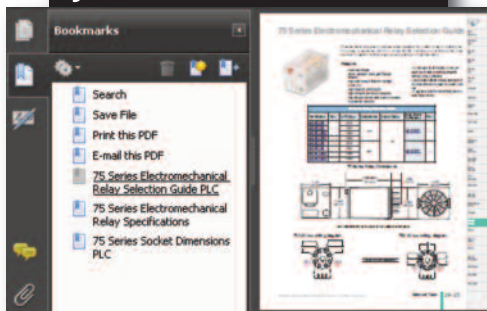
# AUTOMATIONDIRECT.com

# C-more<sup>®</sup> micro

## HMI: Operator Interface



**In this interactive PDF you can:**



- Use bookmarks to navigate by product category
- Use bookmarks to save, search, print or e-mail the catalog section
- Click on part #s to link directly to our online store for current pricing, specs, stocking information and more

Up-to-date price list:  
[www.automationdirect.com.au](http://www.automationdirect.com.au)

FREE Technical Support:  
[www.automationdirect.com.au](http://www.automationdirect.com.au)

FREE Videos:  
[www.automationdirect.com.au](http://www.automationdirect.com.au)

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[www.automationdirect.com.au](http://www.automationdirect.com.au)

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Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

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# C-more Micro

## It's a touch panel... at a text panel price

### Do more with C-more Micro Panels!

C-more Micro panels have become one of the most popular and most reliable value packed operator interfaces in the industrial market. After all, the low prices allow customers with tight budgets to take advantage of graphic control panel features that are most often found in more expensive touch screen products. The C-more Micro selection continues to expand as we now offer 3-inch, 4-inch, 6-inch, 8-inch and 10-inch panel sizes, in both monochrome and color models. With the addition of the larger 8-inch and 10-inch sizes, you can display even more text, graphics, or bitmaps to effectively communicate and display data to the operator. Touch and non-touch screen models are available in the 3-inch models.

Both TFT Color and STN Monochrome panels are now available. The 3-inch and 6-inch STN monochrome versions each offer five selectable background colors that allow you to use color to convey

meaning. Several options, including plug-and-play keypad bezels, are available for both the 3-inch and 6-inch models. The 4-inch 6-inch, 8-inch, and 10-inch TFT full color versions offer up to 32,767 colors for more vibrant and colorful project screens.

Prices Starting at **\$161**

4" TFT model Starting at **\$356**



### C-more Micro Panel Selection Guide

| Feature                              | 3-inch STN Monochrome Models   | 6-inch STN Monochrome Models   | 4-inch and 6-inch TFT Color Models                      | 8-inch and 10-inch TFT Color Models                      |
|--------------------------------------|--|--|---|--|
| <b>Display Resolution &amp; Type</b> | 128 x 64, touch or non-touch   | 320 x 240, touch   | 320 x 240, touch  | 800 x 600, touch   |
| <b>Ports</b>                         | 1 serial (RJ12) and Optional DSUB15  | 2 serial (RJ12 and DSUB15)   | 1 USB (Port 1: USB Type B)<br>1 Serial (Port 2: DSUB15) | 1 USB (Port 1: USB Type B)<br>2 Serial (RJ12 and DSUB15) |
| <b>User Project Memory</b>           | 768KB  | 1,792KB  | 3.2MB   | 30MB   |
| <b>Portrait Mode</b>                 | NO   | YES  | YES   | YES  |
| <b>Colors</b>                        | Monochrome; backlight can be configured per screen and/or per alarm as: red, green, amber, lime, or yellow (standard); or red, white or three shades of pink (high-contrast) | Monochrome; backlight can be configured per screen and/or per alarm as: red, green, amber, lime, or yellow (standard); or red, white or three shades of pink (high-contrast) | 32,768 colors   | 32,768 colors  |



# FREE Configuration Software!

**C-more** Micro Programming Software is based on its powerful sibling, the **C-more** Touch Panel. It offers high end features designed to reduce your configuration time. Simply drag and drop the objects from the Object list (right side of screen) on to the screen construction area. Then configure your PLC tags and

assign them to the objects. Use the built-in simulator to review your work on your PC before ever downloading your project! The time saving benefits of the **C-more** Micro configuration software could easily pay for the panel.

Check out [www.C-moreMicro.com](http://www.C-moreMicro.com) for a demo.

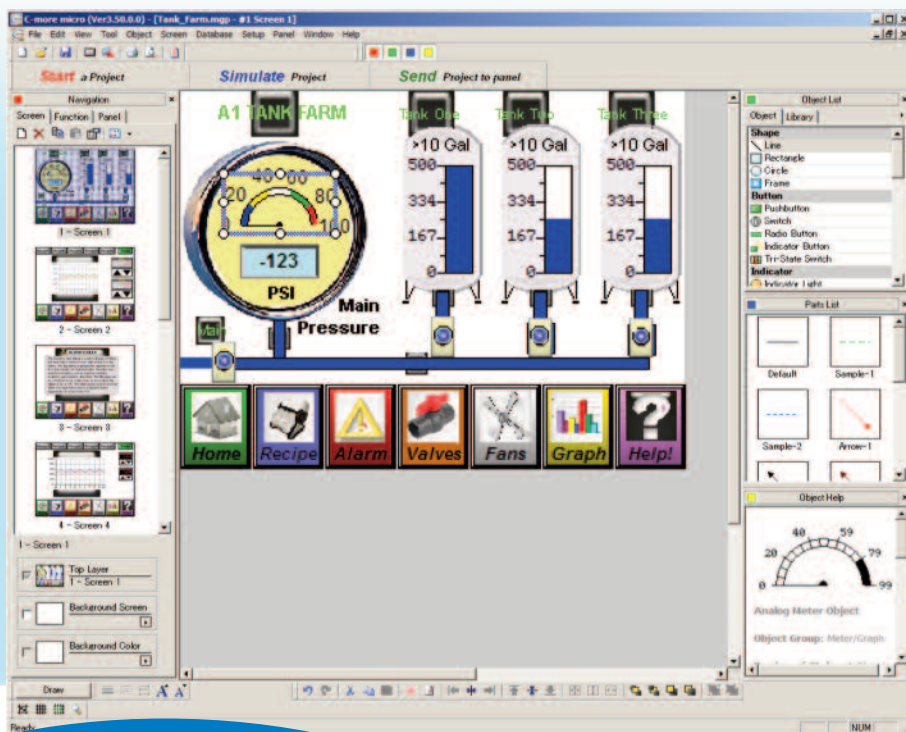
## Built-in project simulator

- **Runs your project on your PC**
- **Test all of your screens before downloading**
- **Time savings pays for the panel!**

## Built-in user object/screen libraries

**Save time by re-using your custom objects and screens.**

### C-more Micro Programming Software



Thumbnail project preview pane  
Helps keep track of multi-screen projects.

Scrolling object selection window  
Lets you find the object you want fast. Just drag and drop it on the screen.

## Download the Software!

**C-more** Micro Programming Software can be downloaded at no charge from the **AutomationDirect** web site, or a CD version may be purchased for \$25 by ordering p/n EA-MG-PGMSW. The software requires a USB port on your PC to connect to the **C-more** Micro panel. Help files are included in the software. *This software can only be used to program the C-more Micro panels, not the C-more 6" through 15" touch panels.*

## Scrolling help window

**Gives you helpful information on each object**

**Learn more! Go to:**

[www.C-moreMicro.automationdirect.com](http://www.C-moreMicro.automationdirect.com)

for detailed specifications, a virtual tour of the product, programming examples, newest communication drivers...

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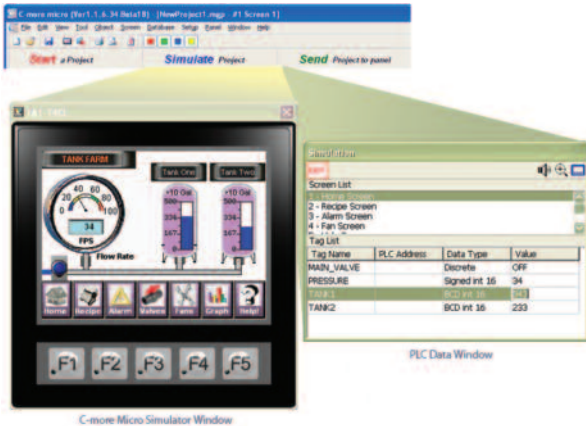
Terms and Conditions

# C-more Micro Productivity Tools

## Built-in Project Simulator

The simulator is a real productivity booster that saves hours of trial-and-error programming and testing, with no need for a panel or controller.

The simulator pops up on your PC screen, along with the simulated controller Data Window. Use your mouse to activate objects on the simulated project screens while monitoring the simulated controller values in the data window. Another option is to adjust simulated values directly in the data window, and see how your **C-more** Micro screens will react in the simulator window.



## Build and Save Custom Objects

Store your objects in the library for fast and easy re-use.

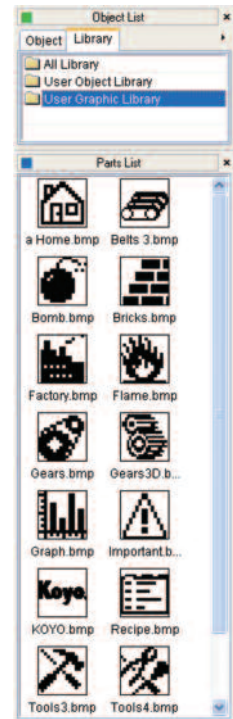
Once you've built a custom object, just right-click on it and select "Object -> Library"

You're then prompted to give your object a name, and you can choose whether to save the PLC tags with the object.

Drag and drop objects from the library onto the workspace.

It's easy to re-use an object. Just drag it from the library and drop it on the desired screen. Then double click it if you want to edit the tags or other options.

Download more objects and graphics from our online library at [www.c-moremicro.com](http://www.c-moremicro.com)



## Lots of memory lets you get creative

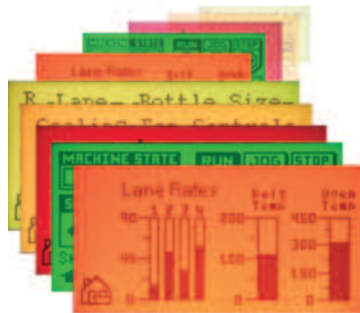
### Screens

While many text panels are limited to 256 or fewer messages, **C-more** Micro allows up to 999 screens for every project. Create all the screens you need to control your machine or process.

### Memory

Ample user memory allows tons of objects and graphics on your screens.

- Pictures and icons convey information faster than text
- Use bar graphs and indicator graphics to enhance comprehension



**Note: Keep in mind that depending on the complexity of your screens, the limiting factor could be the 999 addressable screens or the panel's memory.**

It's easy to track the size of your project:

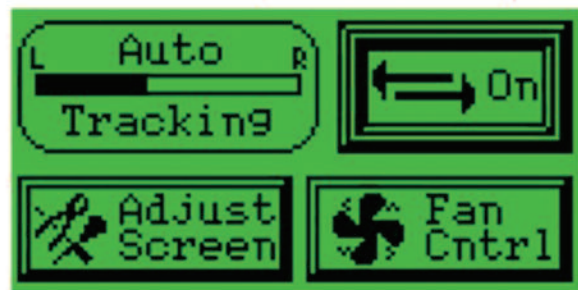
When you download a project to a **C-more** Micro panel, the download dialog box shows you the current project size.

- If your project is large you may want to download only the Runtime File and the controller driver file, but not the entire Project File.
- If you download the Project File, you will be able to upload the entire project from the panel at a later date.

## Overlapping Objects

Our customers loved overlapping objects on the larger **C-more** panels, and we knew you would expect the same capabilities with **C-more** Micro. Here are some examples of overlapping objects:

Several "Text" objects and a "Bar Graph" object overlapped on a "Rectangle" object.      "Dynamic Bitmap" object overlapped on an "Indicator Light" object



"Static Bitmap" object overlapped on a "Screen Change Pushbutton" object

Obviously, some items should not be overlapped. Multiple overlapping touchable objects, for example, may yield undesirable results.

The **C-more** Micro programming software will provide warning messages at the time of download that some overlapping objects may be disabled, or not work as intended.

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## Alarm Control Setup

The Alarm Control Setup feature makes configuring alarms fast and easy. Use a controller tag to activate up to 16 alarm conditions with the built-in Alarm Control feature. Choose from:

- Beep
- LED Blink
- Change Backlight Color
- Blink Selectable Colors
- Show a Banner Message

| Event |                    | Action |           |   |  |  |
|-------|--------------------|--------|-----------|---|--|--|
| No.   | Alarm Notification | Beep   | LED Blink | Backlight                                   | Blink                                      | Banner Message   |
| 01    | [PUMP1TEMP] = 1    | ON     | F1        | <input type="checkbox"/> Current            | <input checked="" type="checkbox"/> Yellow | <input checked="" type="checkbox"/> Pump One Alarm                   |
| 02    | [PUMP2TEMP] = 1    | ON     | F1        | <input type="checkbox"/> Current            | <input type="checkbox"/>                   | <input checked="" type="checkbox"/> Pump Two Alarm                   |
| 03    | [PUMP3TEMP] = 0    | ON     | F1        | <input type="checkbox"/> Current            | <input type="checkbox"/>                   | <input checked="" type="checkbox"/> Pump Three Alarm                 |
| 04    | [WASHTANK1_OVR]    | ON     |           | <input type="checkbox"/> Current            | <input type="checkbox"/>                   | <input checked="" type="checkbox"/> Washtank One Overflow            |
| 05    | [WASHTANK2_OVR]    | OFF    |           | <input type="checkbox"/> Current            | <input type="checkbox"/>                   | <input checked="" type="checkbox"/> Washtank Two Overflow            |
| 06    | [WASHTANK1_LO]     | OFF    |           | <input checked="" type="checkbox"/> Current | <input checked="" type="checkbox"/> Red    | <input checked="" type="checkbox"/> Washtank One Low Level           |
| 07    | [WASHTANK2_LO]     | OFF    |           | <input checked="" type="checkbox"/> Current | <input checked="" type="checkbox"/> Red    | <input checked="" type="checkbox"/> Washtank Two Low Level           |
| 08    | [VALVE1_LOWAIR]    | OFF    |           | <input type="checkbox"/> Current            | <input type="checkbox"/>                   | <input checked="" type="checkbox"/> Valve One Low Air Pressure Level |
| 09    | [VALVE2_LOWAIR]    | OFF    |           | <input type="checkbox"/> Current            | <input type="checkbox"/>                   | <input checked="" type="checkbox"/> Valve Two Low Air Pressure       |
| 10    |                    |        |           |   |  |  |
| 11    |                    |        |           |   |  |  |
| 12    |                    |        |           |   |  |  |
| 13    |                    |        |           |   |  |  |
| 14    |                    |        |           |   |  |  |
| 15    |                    |        |           |   |  |  |
| 16    |                    |        |           |   |  |  |

Use the built-in alarm feature above or create a simple Alarm Screen (right) in conjunction with the message database to display HUNDREDS of different alarm messages.

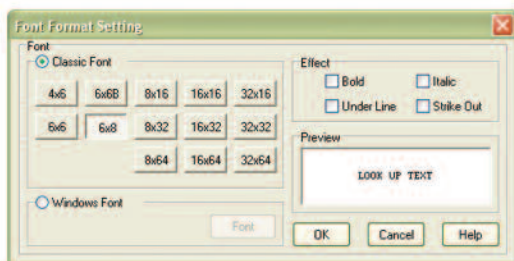
Look-up Text Object



## Use any font on your PC

C-more Micro offers 10 built-in fixed-width "Classic" fonts and allows the use of any Windows fonts present on the programming computer.

- Fixed-width fonts allow maximum lines and characters
- Windows fonts can be scaled to many sizes

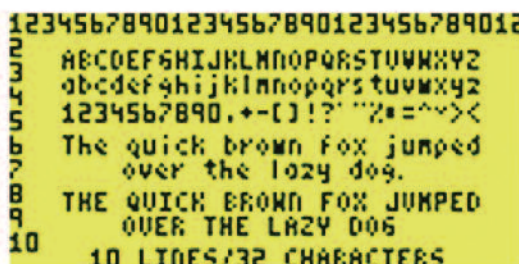
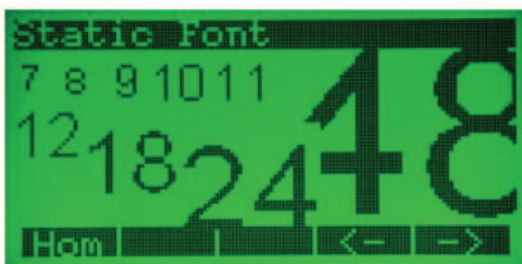


Windows fonts can be sized with their familiar "point" values.

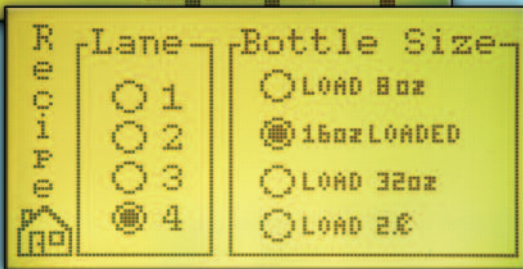
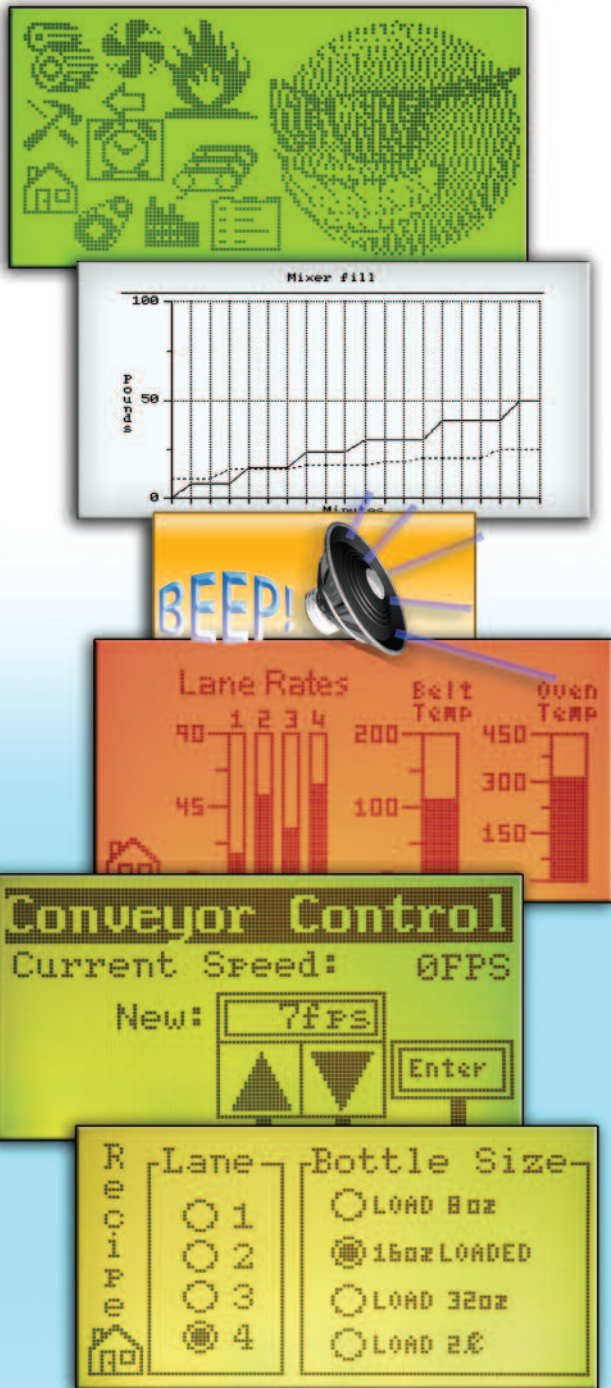


For 3-inch units, the "4x6" fixed font allows a maximum of 32 characters per line and 10 lines for static text.

The 6-inch units support up to 53 lines with 60 characters per line in portrait mode, or 40 lines with 80 characters per line in landscape mode.







## Bitmap graphics

- 3-inch models have 128 X 64 pixel graphical display that supports bitmap graphics
- 4-inch and 6-inch models have 320 X 240 pixel graphical display that support bitmap graphics
- Use bitmap images of pushbuttons, switches, indicators, your company logo
- Use our library of bitmaps
- Create your own library of bitmaps

## Real-time graph

- Each pen displays the value of a single PLC memory location. Values are refreshed by either time or a trigger tag.
- One or two pens can be displayed on the STN models
- Up to eight pens can be displayed on the TFT model
- Up to 24 values can be displayed for each pen

## Controlled beep

- Beep to indicate an alarm
- Beep for a special message
- Beep to verify when button is pressed

## Bar graphs

- Vertical, horizontal, thin, wide, multiple
- Combine with a numeric display for digital readout

## Data entry

- Pop-up numeric keypad on the screen
- Increment/Decrement a value by touching arrows
- Add an optional keypad bezel

## Recipes

Each recipe button transfers up to 99 values from PLC source registers to PLC destination registers and/or from the recipe table to PLC destination registers.

## Change background colors

The screen colors are programmable! Use them to convey meaning - see a red alarm screen from across the room, or use a yellow screen as a caution.

All STN models support the following 5 background colors:

### Green - Red - Yellow - Amber - Lime

All high-contrast STN models support the following 5 background colors:

### White - Pink1 - Pink2 - Pink3 - Red

TFT models allow 32K colors to flash for the background.

## Alarm feature

C-more Micro has an Alarm action that can control:

- Backlight color change/flash
- Function Key LED flash
- Beep activation
- Custom alarm banner display
- Up to 16 configurable alarm actions

# 3-inch STN Monochrome C-more Micro Panels

**3-inch C-more Micro with touch: \$205.00**  
EA1-S3ML and EA1-S3MLW

**3-inch C-more Micro: \$161.00**  
EA1-S3ML-N and EA1-S3MLW-N



## The choice is simple

Four 3-inch models are available, touch and non-touch, with either standard or high-contrast backgrounds, that offer the same base features. The touch units expand application possibilities for only a fraction more.

## 5 function keys and indicators

You can configure the five function keys to change meaning on every screen. The function key labels are simple to customize to your application. Use the programmable LEDs for alarms or status indication.

## Optional keypads



**8 key bezel:**  
**\$64.00**  
EA-MG-BZ1

**20 key bezel:**  
**\$87.00**  
EA-MG-BZ2

Need a hardware keypad for your Micro panels? No problem! Just mount and go - no programming, no external power needed!

- 20-key bezel is great for applications requiring extensive numeric entry
- 8-key bezel works well for simple setpoint adjustment and data entry

## No extra power supply needed when connecting to many of our PLCs

Most AutomationDirect PLCs have a 6-pin, modular RJ12 communication port. The C-more Micro panel can attach directly to this port for communications and power. In this configuration, no external power is needed, saving you time and money.

## Optional power adapters for other configurations

If you are connecting to another brand of PLC, or to a non-RJ12 port on an AutomationDirect PLC, you will need one of the optional snap-on 12-24 VDC power supply units. Two models are available:



**EA-MG-SP1:**  
**12-24 VDC power supply with 15-pin D-sub serial port**

- 12-24 VDC power adapter with 15-pin D-sub RS-232/RS-422/485 serial port used to connect to a PLC, which allows the panel's built-in port to be free for project development (EA-MG-SP1)
- 12-24 VDC power adapter only (EA-MG-P1)
- 8-inch and 10-inch models are 800x600

## Available PLC drivers

The C-more Micro panels have the following drivers available for connection to many PLCs:

- AutomationDirect Productivity3000
- AutomationDirect CLICK (Modbus)
- DirectLOGIC K-sequence, DirectLOGIC DirectNET, DirectLOGIC Modbus (Koyo Addressing)
- GS Drives
- Solo Temperature Controllers
- Modbus RTU
- Entivity Modbus RTU
- Allen-Bradley DF1 Full Duplex
- Allen-Bradley DF1 Half Duplex
- Allen-Bradley PLC5 DF1
- Allen-Bradley DH485
- Omron Host Link (C200 Adapter, C500),
- Omron FINS Serial (CJ1, CS1),
- GE SNPX (90/30, 90/70, VersaMax Micro and Micro 90)
- Mitsubishi Melsec FX
- Mitsubishi Q and QnA
- Siemens PPI



UL, cUL, CE,  
NEMA 4,  
4X indoor



# 4 to 10-inch TFT Color C-more Micro Panels

The **C-more** micro family offers some of the most competitive priced TFT 32,768 color touch screen HMI panels in the market. The C-more Micro operator panels are packed with features, yet priced for the tightest of budgets. With the addition of the larger 8-inch and 10-inch micro touch panel sizes, you can display even more text, graphics, or bitmaps to effectively communicate and display data to the operator.

Users can take advantage of the clear and colorful graphics to create vibrant and intuitive screens. The free programming soft-

ware offers the choice of using many built-in graphics, or importing your own custom graphics. Portrait or landscape modes are supported on all models, which allows for versatile mounting positions when space is a concern.

All of the C-more micro panels are NEMA 4/4X, IP65 (when mounted according to specifications). All these features at a competitive price, in a rugged and reliable HMI platform, make the Micro HMI's one of the best values for any application.

## 4-inch TFT: Standard 1/4 DIN Cutout Size for only \$356.00



### EA1-T4CL features

- 32K Color TFT Display with Touch Screen
- LED backlight
- 320 x 240 resolution
- 3,276KB memory
- Portrait or landscape mounting
- LED backlights
- Standard Type B USB programming port
- Multistate bitmap support
- Five durable function keys with LED indicators
- Windows font support
- Enhanced objects and graphics

## 6-inch TFT: When you need a little more real estate for \$432.00



### EA1-T6CL features

- 32K Color TFT Display with Touch Screen
- LED backlight
- 320 x 240 resolution
- 3,276KB memory
- Portrait or landscape mounting
- LED backlights
- Standard Type B USB programming port
- Multistate bitmap support
- Five durable function keys with LED indicators
- Windows font support
- Enhanced objects and graphics

### Available PLC drivers

C-More Micro panels have the following drivers available for connection to DirectLOGIC and many other PLCs:

- AutomationDirect Productivity3000
- AutomationDirect CLICK (Modbus)
- DirectLOGIC K-sequence, DirectLOGIC DirectNET, DirectLOGIC Modbus (Koyo Addressing)
- GS Drives
- Solo Temperature Controllers
- Modbus RTU
- Entivity Modbus RTU
- Allen-Bradley DF1 Full Duplex
- Allen-Bradley DF1 Half Duplex
- Allen-Bradley PLC5 DF1
- Allen-Bradley DH485
- Omron Host Link (C200 Adapter, C500),
- Omron FINS serial (CJ1, CS1),
- GE SNPX (90/30, 90/70, VersaMax Micro and Micro 90)
- Mitsubishi Melsec FX
- Mitsubishi Q and QnA
- Siemens PPI



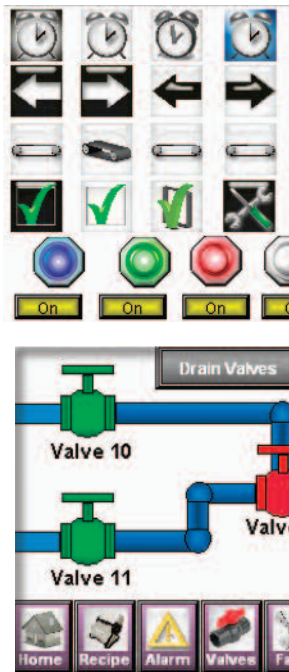
## TFT vs STN benefits

- Standard Type B USB programming port
- Multistate bitmap objects (not available in STN models)
- Line graph displays up to eight pens (STN models support up to two)
- Real time graph displays up to eight pens, with up to 24 values for each pen
- Enhanced objects and graphics
- Analog meter supports Low-low, Low, Normal range, High and High-high indication

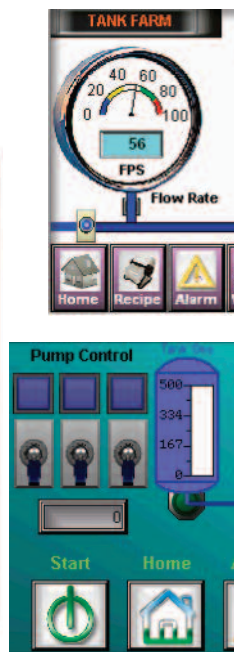
## Use built-in or custom graphics

## Create colorful projects

## TFT panels support portrait or landscape mode



## 8-inch or 10-inch TFT: When you need a lot more real estate for \$749.00



## 8 and 10-inch features

- 32K Color TFT Display with Touch Screen
- LED backlight
- 320 x 240 resolution
- 30MB memory
- Portrait or landscape mounting
- LED backlights
- Standard Type B USB programming port
- Multistate bitmap support
- Seven durable function keys with LED indicators
- Windows font support
- Enhanced objects and graphics

Take a look at the **C-more** micro family average review scores from our web store.

[Read Reviews](#) [Write a Review](#)

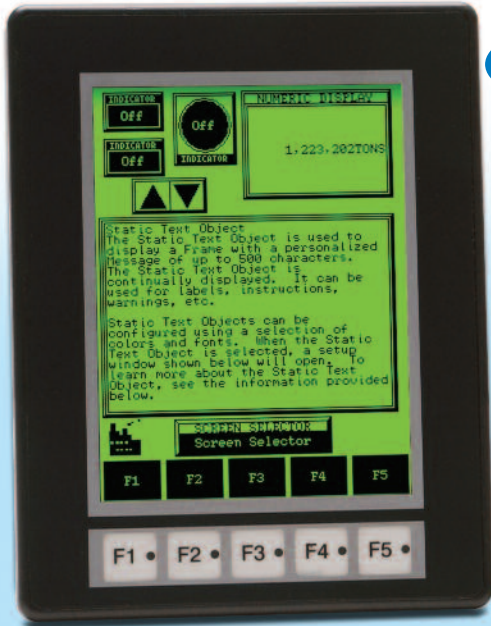
### Averages for C-more Micro-Graphic Panels



# 6-inch STN Monochrome C-more Micro Panels

Two monochrome 6-inch models are available (standard or high-contrast background), offering the same base features. Both units have touch screens and display STN monochrome graphics; the configurable screen backgrounds let you use color to convey meaning. The standard unit supports green, lime, yellow, amber

and red background colors. The high contrast unit offers background colors that include white, pink1, pink2, pink3 and red. The background colors can be controlled by the operator or the PLC, based on the selected configuration.



**Supports both portrait and landscape mounting**



**6-inch C-more micro: \$324.00**  
EA1-S6ML Touch Screen

**6-inch C-more micro: \$324.00**  
EA1-S6MLW Touch Screen with High-contrast White

## 5 function keys and indicators

You can configure the five function keys to change meaning on every screen. The function key labels are simple to customize to your application. Use the programmable LEDs for alarms or status indication.



## Optional keypads

Need a hardware keypad for your C-more 6" Micro panels? No problem! Just mount and go - no programming, no external power needed!

- For Portrait (vertical) mounted panels - 21-button keypad bezel with numeric keypad
- For Landscape (horizontal) mounted panels - 20-button keypad bezel with numeric keypad



**Portrait keypad bezel: \$79.00**  
EA-MG6-BZ2P

**Landscape keypad bezel: \$107.00**  
EA-MG6-BZ2



**UL, cUL, CE,  
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# C-more Micro Panels Selection Guide

| C-more Micro Panels |                      |   |       |
|---------------------|----------------------|---|-------|
| Part Number         |                      | Description   | Price |
| EA1-S3ML            |                      | <b>C-more</b> Micro touch screen interface panel, 3.1-inch, monochrome STN LCD, 128 x 64 pixel. Supports 5 selectable background colors: red, green, amber, lime, and yellow; 5 user-defined function keys with LED indicators. Includes (1) serial port. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Power is supplied to the panel through the serial communication port connection when used with AutomationDirect PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial port option module) required when connecting to third party PLCs.                          | \$    |
| EA1-S3ML-N          | <b>Non-Touch</b><br> | <b>C-more</b> Micro non-touch screen interface panel, 3.1-inch, monochrome STN LCD, 128 x 64 pixel. Supports 5 selectable background colors: red, green, amber, lime, and yellow; 5 user-defined function keys with LED indicators. Includes (1) serial port. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Power is supplied to the panel through the serial communication port connection when used with AutomationDirect PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial port option module) required when connecting to third party PLCs.                      | \$    |
| EA1-S3MLW           |                      | <b>C-more</b> Micro touch screen interface panel, 3.1-inch, monochrome STN LCD, 128 x 64 pixel, high-contrast white. Supports 5 selectable background colors: white, pink1, pink2, pink3, and red; 5 user-defined function keys with LED indicators. Includes (1) serial port. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Power is supplied to the panel through the serial communication port connection when used with AutomationDirect PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial port option module) required when connecting to third party PLCs.     | \$    |
| EA1-S3MLW-N         | <b>Non-Touch</b><br> | <b>C-more</b> Micro non-touch screen interface panel, 3.1-inch, monochrome STN LCD, 128 x 64 pixel, high-contrast white. Supports 5 selectable background colors: white, pink1, pink2, pink3, and red; 5 user-defined function keys with LED indicators. Includes (1) serial port. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Power is supplied to the panel through the serial communication port connection when used with AutomationDirect PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial port option module) required when connecting to third party PLCs. | \$    |
| EA1-T4CL            |                      | <b>C-more</b> Micro touch screen interface panel, 4-inch, TFT color LCD, 320 x 240 pixel, 32k colors, LED backlight, 5 user-defined function keys with LED indicators. Includes (1) USB Type B port and (1) serial port. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Display supports Portrait and Landscape modes. Panel mount conforms to standard 1/4 DIN cutout.   | \$    |
| EA1-S6ML            |                      | <b>C-more</b> Micro touch screen interface panel, 6-inch, monochrome STN LCD, 320 x 240 pixel. Supports 5 selectable background colors: red, green, amber, lime, and yellow; 5 user-defined function keys with LED indicators. Includes (2) serial ports. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Display supports Portrait and Landscape modes.   | \$    |
| EA1-S6MLW           |                      | <b>C-more</b> Micro touch screen interface panel, 6-inch, monochrome STN LCD, 320 x 240 pixel, high-contrast white. Supports 5 selectable background colors: white, pink1, pink2, pink3, and red; 5 user-defined function keys with LED indicators. Includes (2) serial ports. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Display supports Portrait and Landscape modes.  | \$    |
| EA1-T6CL            |                      | <b>C-more</b> Micro touch screen interface panel, 6-inch, color TFT, 320 x 240 pixel, 32k colors, LED backlight, 5 user-defined function keys with LED indicators. Includes (1) USB Type B port and (1) 15-pin D-sub RS-232/422/485 serial port. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Display supports Portrait and Landscape modes.  | \$    |
| EA3-T8CL            |                      | <b>C-more</b> Micro touch screen interface panel, 8-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Compatible with EA-MG-PGMSW programming software version 3.5 or later.  | <---> |
| EA3-T10CL           |                      | <b>C-more</b> Micro touch screen interface panel, 10-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Compatible with EA-MG-PGMSW programming software version 3.5 or later.   | <---> |

# C-more Micro Panels Selection Guide

| <b>C-more Micro Panel Accessories</b> |   |   |              |
|---------------------------------------|---|---|--------------|
| <b>Part Number</b>                    |   | <b>Description</b>  | <b>Price</b> |
| <b>EA-MG-BZ1</b>                      |    | 8-button keypad bezel for <b>C-more</b> 3" Micro panels, with four arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad. Designed for easy drop-in of the Micro panels.  | \$           |
| <b>EA-MG-BZ2</b>                      |    | 20-button keypad bezel with numeric keypad for <b>C-more</b> 3" Micro panels, with four arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad to enter numeric data. Designed for easy drop-in of the Micro panels.   | \$           |
| <b>EA-MG-P1</b>                       |    | Optional DC Power Adapter for <b>C-more</b> 3" Micro panels. Required when using third party PLCs, or when using 24VDC power instead of the 5VDC supplied from the RJ12 connector of a Productivity Series, CLICK or <b>Direct</b> LOGIC PLC.   | \$           |
| <b>EA-MG-SP1</b>                      |    | Optional Serial Port with DC Power Adapter for <b>C-more</b> 3" Micro panels. Serial port is a D-Sub 15-pin RS-232/RS-422/485 connector. Required when using RS422, RS485 or third party PLCs.  | \$           |
| <b>EA-MG6-BZ2</b>                     |    | 20-button keypad bezel with numeric keypad for 6-inch <b>C-more</b> Micro panels being used in landscape (horizontal) mounted mode, with 2 arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad to enter numeric data. Designed for easy drop-in of the 6-inch Micro panels. | \$           |
| <b>EA-MG6-BZ2P</b>                    |   | 21-button keypad bezel with numeric keypad for 6-inch <b>C-more</b> Micro panels being used in Portrait (vertical) mounted mode, with 2 arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad to enter numeric data. Designed for easy drop-in of the 6-inch Micro panels.    | \$           |
| <b>EA-MG-COV-CL</b>                   |  | Optional clear screen overlay used to protect <b>C-more</b> 3" Micro displays from minor scratches and wear. Package contains five (5) clear screen overlays.   | \$           |
| <b>EA-4-COV2</b>                      |   | Optional clear screen overlay used to protect <b>C-more</b> 4" Micro displays from minor scratches and wear. Package contains three (3) clear screen overlays.  | \$           |
| <b>EA-6-COV2</b>                      |   | Optional clear screen overlay used to protect <b>C-more</b> 6" Micro displays from minor scratches and wear. Package contains three (3) clear screen overlays.  | \$           |
| <b>EA-8-COV2</b>                      |   | Optional clear screen overlay used to protect <b>C-more</b> 8" Micro displays from minor scratches and wear. Package contains three (3) clear screen overlays.  | \$           |
| <b>EA-10-COV2</b>                     |   | Optional clear screen overlay used to protect <b>C-more</b> 10" Micro displays from minor scratches and wear. Package contains three (3) clear screen overlays.   | \$           |



# C-more 3" Micro Panels Overview

## Overview

**C-more** 3" Micro panels are the next generation of Graphic/Text panels based on the very successful **C-more** touch panel design. **C-more** Micro panels are very small, yet offer touch screen capability and graphics. Models are available with touch screen ability and without touch screen. Several options such as plug and play keypad bezels are available.

In addition to the simple free downloadable panel configuration software, a very helpful feature is the built-in project simulator. The project simulator allows you to view your project on the PC screen as it would appear on the panel and to test all your screens before downloading the project to the panel. You can simulate your entire project at any stage of development. With version 2.50 or later, even simulate the function keys and keypad bezel.

## Getting started

Installing the software and configuring the **C-more** Micro panel is simple. You will need the following to successfully connect and configure a project for the panel:

- **C-more** Micro panel
- **C-more** Micro Programming Software EA-MG-PGMSW (Downloadable version available from the **AutomationDirect** web site at no charge.)
- **C-more** Micro USB to RS232 Programming Cable Assembly EA-MG-PGM-CBL, used to connect between a PC and the Micro panel's built-in serial port
- Power source – either powered from the RJ12 serial comm port on most **AutomationDirect** PLCs, **C-more** DC Power Adapter EA-MG-P1, or Serial Port with DC Power Adapter EA-MG-SP1
- Personal computer – to run the **C-more** Micro programming software
- Communications Cable (serial) – to connect the **C-more** Micro panel to your controller

## Drivers for your Controller

**C-more** 3" Micro panels have the following drivers available for connection to Productivity Series, Do-more, CLICK, **DirectLOGIC** and many other devices:

- AutomationDirect Productivity Series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **DirectLOGIC** K-sequence, **DirectLOGIC** DirectNET, **DirectLOGIC** Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500)  
Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

Part No. EA1-S3ML,  
EA1-S3MLW

Touch  
Screen



\$205.00



**Note: Software and Firmware Version 1.5 or later is required with models EA1-S3MLW and EA1-S3MLW-N. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

Part No. EA1-S3ML-N,  
EA1-S3MLW-N

Non-  
Touch



\$161.00

## Features

### Bitmaps

- 128 X64 pixel graphical display supports bitmaps
- Use bitmap images of pushbuttons, switches, indicators, your company logo
- Use provided library of bitmaps
- Create your own library of bitmaps

### Text - 10 lines

- 10 lines by 32 characters of static text
- look up text, scroll up to 128 characters
- 10 lines by 21 characters of dynamic text, embedded variables, on/off phrases, scroll up to 40 characters
- scroll text object with up to 128 characters
- Inverse view to accentuate text

### Beep

- Beep to indicate an alarm
- Beep for a special message
- Beep to verify when button is pressed

### Bar graphs

- Vertical, horizontal, skinny, fat, multiple

### Data entry

- Pop-up numeric key pad on the screen
- Increment/decrement a value by touching arrows
- Add an optional keypad bezel

### Recipes

Each recipe button transfers up to 99 values from PLC source registers to PLC destination registers and/or from the recipe table to PLC destination registers.

### 5 dynamic background colors

Screen background colors can be controlled by the program to choose one of five colors depending upon the model. Choices for models EA1-S3ML and EA1-S3ML-N include green, lime, yellow, amber and red. Models EA1-S3MLW and EA1-S3MLW-N background colors include white, pink1, pink2, pink3 and red. For example, use a red background for an alarm condition or a yellow background on a caution screen that will be easily noticed.



EA1-S3ML, EA1-S3ML-N



EA1-S3MLW, EA1-S3MLW-N

### Up to 999 Screens

**C-more** Micro supports up to 999 screens. Screen quantity is limited by memory usage which is determined by the total bitmaps, objects, etc. that are used.

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# C-more 3" Micro Panels Overview

| <b>C-more 3" Micro Panels</b> |  |  |              |
|-------------------------------|--|--|--------------|
| <b>Part Number</b>            |  | <b>Description</b>   | <b>Price</b> |
| <b>EA1-S3ML</b>               | <b>Touch Screen</b><br> | 3.1-inch <b>C-more</b> Micro Touch Panel with green and red LED backlights. Supports 5 selectable backlight colors (Green, Red, Amber, Yellow and Lime). STN LCD monochrome, 128 x 64 dot display. Has 5 user-defined function keys with LED indicators. Power is supplied to the panel through the serial communication port connection when used with <b>DirectLOGIC</b> PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial option module) required when connecting to third party PLCs. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).                   | \$           |
| <b>EA1-S3ML-N</b>             | <b>Non-Touch</b><br>    | 3.1-inch <b>C-more</b> Micro Non-Touch Panel with green and red LED backlights. Supports 5 selectable backlight colors (Green, Red, Amber, Yellow and Lime). STN LCD monochrome, 128 x 64 dot display. Has 5 user-defined function keys with LED indicators. Power is supplied to the panel through the serial communication port connection when used with <b>DirectLOGIC</b> PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial option module) required when connecting to third party PLCs. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).               | \$           |
| <b>EA1-S3MLW</b>              | <b>Touch Screen</b><br> | 3.1-inch <b>C-more</b> Micro Touch Panel with High Contrast white and red LED backlights. Supports 5 selectable backlight colors (White, Pink1, Pink2, Pink3 and Red). STN LCD monochrome, 128 x 64 dot display. Has 5 user-defined function keys with LED indicators. Power is supplied to the panel through the serial communication port connection when used with <b>DirectLOGIC</b> PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial option module) required when connecting to third party PLCs. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).     | \$           |
| <b>EA1-S3MLW-N</b>            | <b>Non-Touch</b><br>    | 3.1-inch <b>C-more</b> Micro Non-Touch Panel with High Contrast white and red LED backlights. Supports 5 selectable backlight colors (White, Pink1, Pink2, Pink3 and Red). STN LCD monochrome, 128 x 64 dot display. Has 5 user-defined function keys with LED indicators. Power is supplied to the panel through the serial communication port connection when used with <b>DirectLOGIC</b> PLCs having an RJ12 communication port. EA-MG-SP1 (power supply with serial option module) required when connecting to third party PLCs. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). | \$           |



**NOTE:** **C-more 3"** Micro panels with the letter "W" in the part number are units with 5 selectable background colors of White, Pink1, Pink2, Pink3 and Red. **C-more 3"** Micro panels without the letter "W" in the part number are provided with 5 selectable background colors of Green, Red, Amber, Yellow and Lime.



**NOTE:** Software and Firmware Version 1.5 or later is required with models EA1-S3MLW and EA1-S3MLW-N. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).





# C-more 3" Micro Panels Overview

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Control Systems Overview

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Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

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Productivity Controller Overview

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C-More Micro HMI



ViewMarq Industrial Marquees






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| C-more 3" and 6" Micro STN Monochrome Panels Programming Software & Programming Cable |   |  |       |
|---|---|--|-------|
| Part Number   |   | Description  | Price |
| EA-MG-PGMSW   |  | <b>C-more</b> Micro panel Windows-based configuration software. Requires Windows 2000 with Service Pack 4, XP Home or Professional 32-bit with Service Pack 2, Vista, Windows 7 32-bit or 64-bit or Windows 8 32-bit or 64 bit. Requires USB port connection from PC to touch panel. Includes CD-ROM. Programming cable sold separately. Downloadable version available from the Web site at no charge. Software Help Files included in download. Programs all C-more Micro Panels.                      | \$    |
| EA-MG-PGM-CBL   |  | 6-ft. cable assembly to connect personal computer to 3" and 6" <b>C-more</b> Micro STN monochrome panels for setup and programming. (Note: This cable assembly uses the PC's USB port and converts the signals to serial transmissions. The USB port supplies 5 VDC to the 3" and 6" Micro STN monochrome panel for configuration operations). Assembly includes standard USB A-type connector to B-type connector cable, custom converter, and an RS232C cable with RJ12 modular connector on each end. | \$    |

| C-more 3" Micro Panel Accessories |   |  |       |
|-----------------------------------|---|--|-------|
| Part Number                       |   | Description  | Price |
| EA-MG-BZ1                         |    | 8-button keypad bezel for <b>C-more</b> 3" Micro panels, with 4 arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad. Designed for easy drop-in of the Micro panels. No panel configuration is required.  | \$    |
| EA-MG-BZ2                         |   | 20-button keypad bezel with numeric keypad for <b>C-more</b> 3" Micro panels, with 4 arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad to enter numeric data. Designed for easy drop-in of the Micro panels. No panel configuration is required. | \$    |
| EA-MG-P1                          |  | Optional DC Power Adapter for <b>C-more</b> 3" Micro panels. Required when using third party PLCs, or when using 24 VDC power instead of the 5 VDC supplied from the RJ12 connector of a CLICK or <b>DirectLOGIC</b> PLC.  | \$    |
| EA-MG-SP1                         |  | Optional Serial Port with DC Power Adapter for <b>C-more</b> 3" Micro panels. Serial port is a D-Sub 15-pin RS-232/RS-422/485 connector. Required when using RS422, RS485 or third party PLCs.   | \$    |
| EA-MG-COV-CL                      |  | Optional clear screen overlay used to protect <b>C-more</b> 3" Micro displays from minor scratches and wear. Package contains 5 clear screen overlays.   | \$    |



**For a list of supported protocols and cabling options refer to the 3" C-more Micro Protocols and cabling chart starting on page CK-24.**

# C-more 3" Micro STN Touch Panel

Model EA1-S3ML **C-more** 3" Micro touch panel has a 3.1-inch STN LCD monochrome display and five selectable LED-driven backlight colors: Green, Red, Amber, Yellow and Lime. It features a 128 x 64 dot display, and five user-defined function keys each with a user-defined red LED indicator. The panel can display up to 10 lines by 32 characters of static text and up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). This Micro panel can receive power from the serial communications port of most AutomationDirect PLCs. An EA-MG-SP1 Serial Port with DC Power Adapter option module (RS-232/422/485) is required when using other controllers.

Part No. EA1-S3ML



**\$330.00**

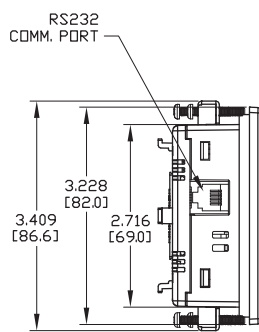
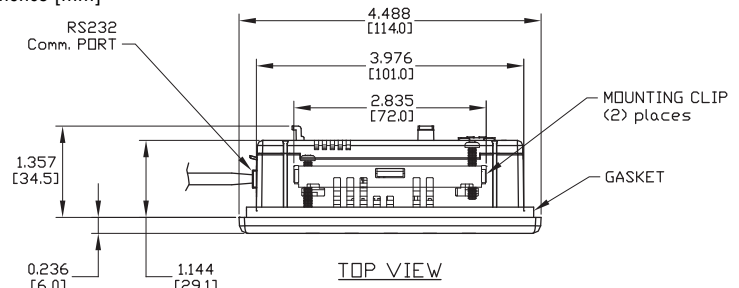


## Features

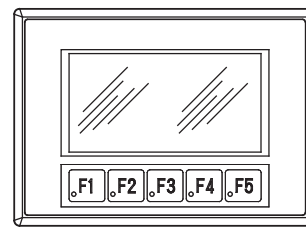
- Touch screen display
- Free downloadable programming software
- 128 x 64 Dot display with up to 10 lines by 32 characters of text and graphics
- Up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 5-Color LED backlight for longer lifetime; Green, Red, Amber, Yellow and Lime
- 2 optional snap-on keypad bezels
- 768 KB memory
- Panel is powered from PLC comm port when using select AutomationDirect PLCs. Use optional DC power adapter and serial port modules if needed for other controllers (RS-232/422/485)
- Built in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

## Dimensions

Units: inches [mm]



C-more Micro-Graphic Panel

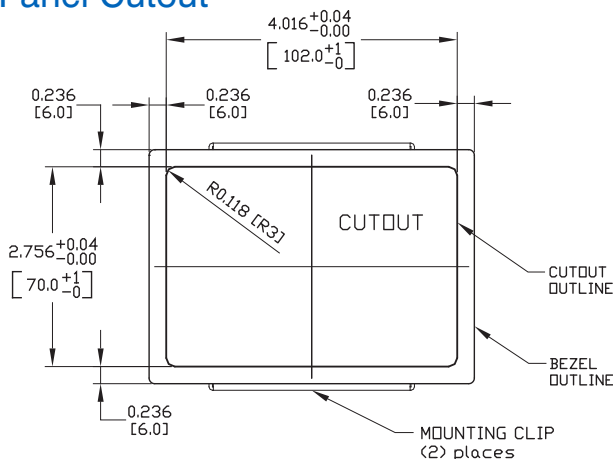


LEFT VIEW

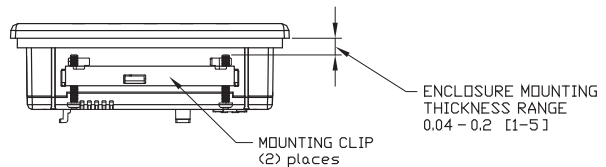
FRONT VIEW

**NOTE: Don't forget the optional keypad bezels, DC power adapter and serial port with DC power adapter shown in the Accessories.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 3" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more Micro panels will not fit in cutouts for DV-1000, EZText or Optimate panels.**

# C-more 3" Micro STN Touch Panel

Model EA1-S3MLW **C-more** 3" Micro touch panel has a 3.1-inch STN LCD monochrome display and five selectable LED-driven backlight colors: White, Pink1, Pink2, Pink3 and Red. It features a 128 x 64 dot display, and five user-defined function keys each with a user-defined red LED indicator. The panel can display up to 10 lines by 32 characters of static text and up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). This Micro panel can receive power from the serial communications port of most AutomationDirect PLCs. An EA-MG-SP1 Serial Port with DC Power Adapter option module (RS-232/422/485) is required when using other controllers.

Part No. EA1-S3MLW



\$330.00

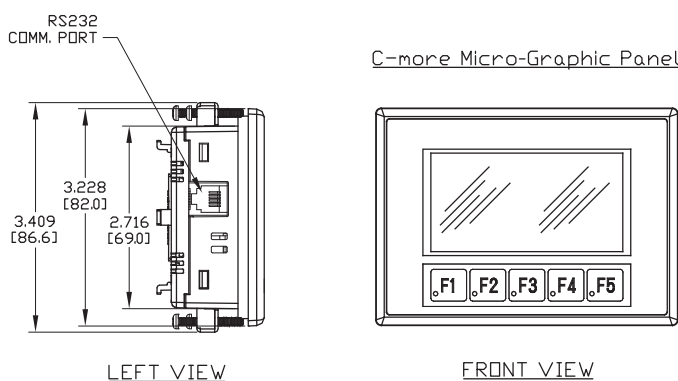
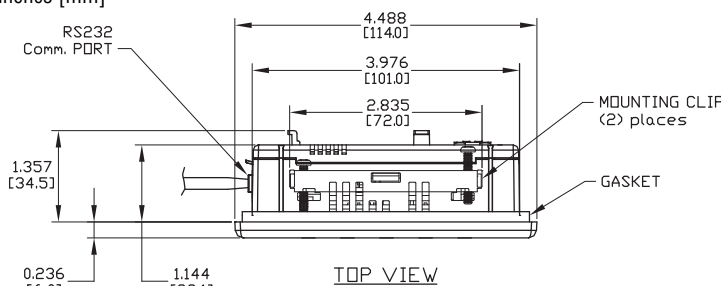


## Features

- Touch screen display
- Free downloadable programming software
- 128 x 64 Dot display with up to 10 lines by 32 characters of text and graphics
- Up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 5-Color LED backlight for longer lifetime; White, Pink1, Pink2, Pink3 and Red
- 2 optional snap-on keypad bezels
- 768 KB memory
- Panel is powered from PLC comm port when using select AutomationDirect PLCs. Use optional DC power adapter and serial port modules if needed for other controllers (RS-232/422/485)
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

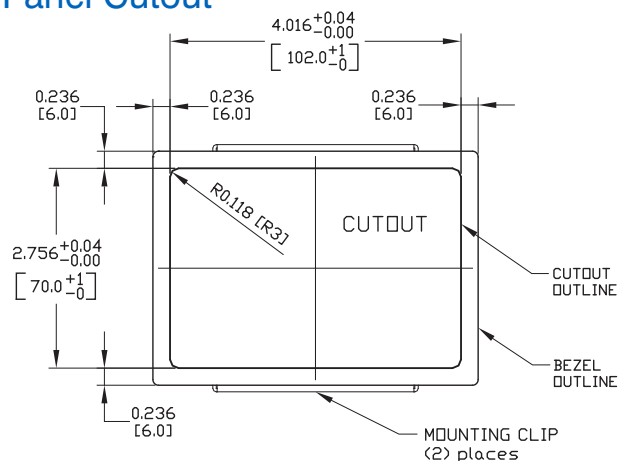
## Dimensions

Units: inches [mm]

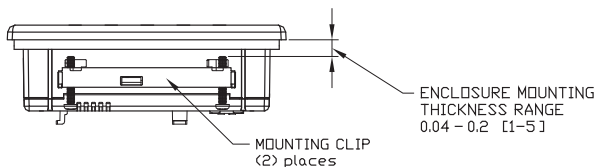


**NOTE: Don't forget the optional keypad bezels, DC power adapter and serial port with DC power adapter shown in the Accessories.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 3" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more Micro panels will not fit in cutouts for DV-1000, EZText or Optimate panels.**



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CLICK PLC

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Do-More H2 PLC

Do-More T1H PLC

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Direct LOGIC DL05/06

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# C-more 3" Micro STN Non-Touch

Model EA1-S3ML-N **C-more** 3" Micro non-touch panel has a 3.1-inch STN LCD monochrome display and five selectable LED-driven backlight colors: Green, Red, Amber, Yellow and Lime. It features a 128 x 64 dot display, and five user-defined function keys each with a user-defined red LED indicator. The panel can display up to 10 lines by 32 characters of static text and up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). This Micro panel can receive power from the serial communications port of most AutomationDirect PLCs. An EA-MG-SP1 Serial Port with DC Power Adapter option module (RS-232/422/485) is required when using other controllers.

Part No. EA1-S3ML-N



**\$265.00**

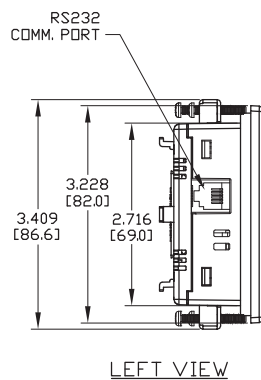
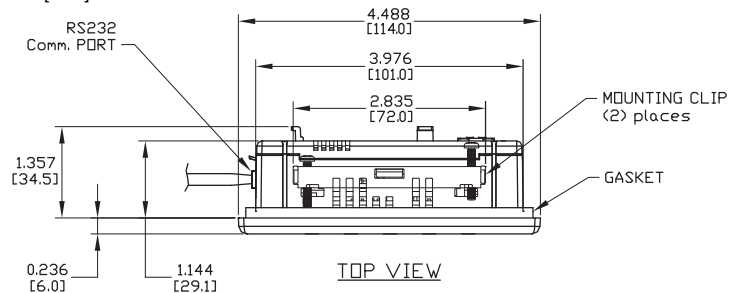


## Features

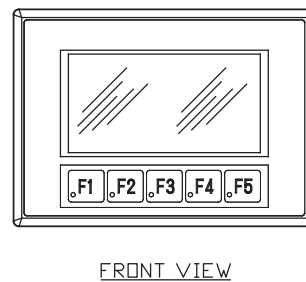
- Free downloadable programming software
- 128 x 64 Dot display with up to 10 lines by 32 characters of text and graphics
- Up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 5-Color LED backlight for longer lifetime; Green, Red, Amber, Yellow and Lime
- 2 optional snap-on keypad bezels
- 768 KB memory
- Panel is powered from PLC comm port when using select AutomationDirect PLCs. Use optional DC power adapter and serial port modules if needed for other controllers (RS-232/422/485)
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

## Dimensions

Units: inches [mm]

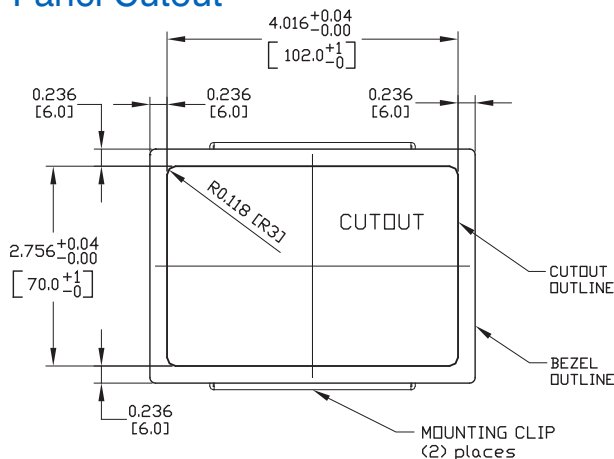


C-more Micro-Graphic Panel

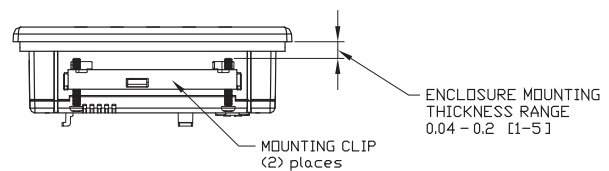


**NOTE: Don't forget the optional keypad bezels, DC power adapter and serial port with DC power adapter shown in the Accessories.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 3" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more Micro panels will not fit in cutouts for DV-1000, EZText or Optimate panels.**



# C-more 3" Micro STN Non-Touch

Model EA1-S3ML-N **C-more** 3" Micro non-touch panel has a 3.1-inch STN LCD monochrome display and five selectable LED-driven backlight colors including White, Pink1, Pink2, Pink3 and Red. It features a 128 x 64 dot display, and five user-defined function keys each with a user-defined red LED indicator. The panel can display up to 10 lines by 32 characters of static text and up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). This Micro panel can receive power from the serial communications port of most AutomationDirect PLCs. An EA-MG-SP1 Serial Port with DC Power Adapter option module (RS-232/422/485) is required when using third-party PLCs.

Part No. EA1-S3MLW-N



\$265.00

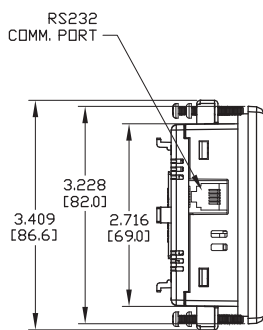
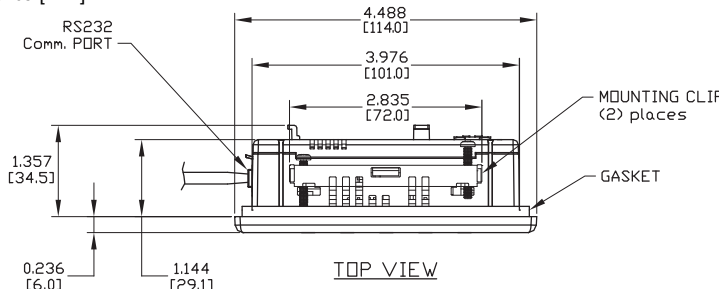


## Features

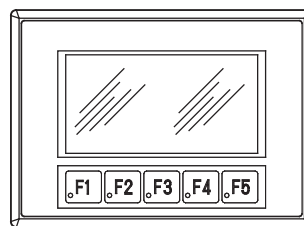
- Free downloadable programming software
- 128 x 64 Dot display with up to 10 lines by 32 characters of text and graphics
- Up to 10 lines by 21 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 5-Color LED backlight for longer lifetime; White, Pink1, Pink2, Pink3 and Red
- 2 optional snap-on keypad bezels
- 768 KB memory
- Panel is powered from PLC comm port when using select AutomationDirect PLCs. Use optional DC power adapter and serial port modules if needed for other controllers (RS-232/422/485)
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

## Dimensions

Units: inches [mm]



C-more Micro-Graphic Panel

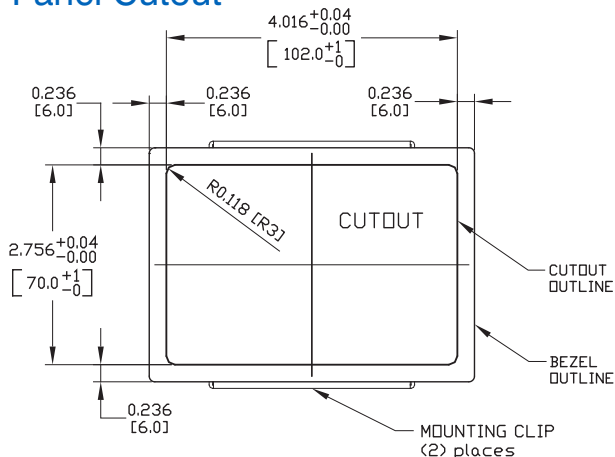


LEFT VIEW

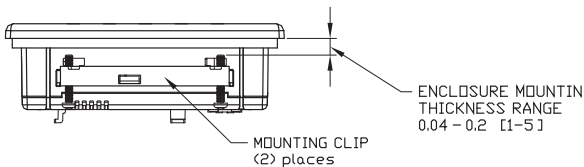
FRONT VIEW

**NOTE: Don't forget the optional keypad bezels, DC power adapter and serial port with DC power adapter shown in the Accessories.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 3" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more Micro panels will not fit in cutouts for DV-1000, EZText or Optimate panels.**

# C-more 3" Micro Specifications

| Specification   | Model | 3" STN Micro Panel Touch Screen  | 3" STN Micro Panel Non-Touch Screen |
|---|-------|--|-------------------------------------|
| <b>Part Number</b>  |       | EA1-S3ML, EA1-S3MLW  | EA1-S3ML-N, EA1-S3MLW-N             |
| <b>Description</b>  |       | 128 x 64 dots LCD display, five user defined keypad function buttons, and five user defined LED's  |                                     |
| <b>Display</b>  |       |  |                                     |
| • <b>Type</b>   |       | 3.1" STN monochrome LCD, graphical characters  |                                     |
| • <b>Resolution</b>   |       | 128 (W) x 64 (H) dots  |                                     |
| • <b>Color</b>  |       | 2 colors (normal / inverse)  |                                     |
| • <b>Viewing Area Size</b>  |       | 2.789" (W) x 1.385" (H) [70.8 mm x 35.2 mm]  |                                     |
| • <b>Active Area Size</b>   |       | 2.670" (W) x 1.259" (H) [67.8 mm x 32.0 mm]  |                                     |
| • <b>Contrast</b>   |       | Adjusted from the panel's built-in configuration setup menu  |                                     |
| • <b>Viewing Angle</b>  |       | 3, 9 o'clock axis → 45 degrees<br>6 o'clock axis → 45 degrees<br>12 o'clock axis → 30 degrees  |                                     |
| <b>Backlight</b>  |       |  |                                     |
| • <b>Type</b>   |       | LED  |                                     |
| • <b>Color</b>  |       | 5 user defined colors: <b>EA1-S3ML, EA1-S3ML-N</b> - Red, Green, Amber, Lime, and Yellow<br><b>EA1-S3MLW, EA1-S3MLW-N</b> - White, Pink1, Pink2, Pink3 and Red   |                                     |
| • <b>User Replaceable</b>   |       | No   |                                     |
| <b>Touch Screen</b>   |       |  |                                     |
| • <b>Type</b>   |       | Analog touch panel   | N/A                                 |
| • <b>Operation</b>  |       | 51 gram force [0.5 N] maximum  | N/A                                 |
| • <b>Life</b>   |       | Minimum of 1,000,000 cycles  | N/A                                 |
| <b>Features</b>   |       |  |                                     |
| • <b>User Memory</b>  |       | 768 KB   |                                     |
| • <b>Number of Screens</b>  |       | Up to 999 – limited by project memory usage  |                                     |
| • <b>Beep (Internal)</b>  |       | Yes  |                                     |
| • <b>Keypad Function Buttons</b>                                    |       | Five user defined function key buttons with the ability to customize the label.<br>Minimum of 500,000 cycles   |                                     |
| • <b>Keypad Function Button LEDs</b>                                |       | Each function key button includes a red LED that can be user programmed.   |                                     |
| • <b>Serial Communications</b>                                      |       | Built-in RJ12 serial communications port (RS-232).<br>Optional serial communications port (RS-232, RS-485/422) when using the optional EA-MG-SP1 Serial Port with DC Power Adapter.  |                                     |
| • <b>Expansion Connection</b>                                       |       | Yes – used with optional Keypad Bezels, EA-MG-BZ1 & BZ2, and EA-MG-P1 DC Power Adapter, and EA-MG-SP1 Serial Port with DC Power Adapter.   |                                     |
| <b>Screen Objects</b>   |       |  |                                     |
| • <b>Functional Devices</b>   |       | Push Button, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Scroll Text, Screen Change Push Button, Screen Selector, Adjust Contrast, Function, Key Configuration Object, Realtime Graph, Line Graph, Analog Meter |                                     |
| • <b>Static Shapes</b>  |       | Lines, Rectangles, Circles and Frames  |                                     |
| • <b>Displayable Fonts</b>  |       | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts  |                                     |
| <b>C-more 3" Micro panel specifications continued on next page.</b> |       |  |                                     |



NOTE: Photo includes EA-MG-BZ2





# C-more 3" Micro Specifications

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

Appendix Book 1

Terms and Conditions

| Specification                                      | Model | 3" STN Micro Panel Touch Screen   | 3" STN Micro Panel Non-Touch Screen |
|--|-------|---|-------------------------------------|
| <b>Part Number</b>                                 |       | EA1-S3ML, EA1-S3MLW   | EA1-S3ML-N, EA1-S3MLW-N             |
| <b>Electrical</b>                                  |       |   |                                     |
| • <b>Input Voltage Range</b>                       |       | 5.0 VDC (4.75 – 5.25 VDC)   |                                     |
| • <b>Input Power</b>                               |       | Supplied through the panel's RJ12 serial communications port connection when used with any AutomationDirect PLC having an RJ12 communication port. Can also be supplied from an external Class 2, 12-24 VDC power source when using the optional EA-MG-P1 DC Power Adapter, or the optional EA-MG-SP1 Serial Port with DC Power Adapter |                                     |
| • <b>Power Consumption</b>                         |       | 1.05W (220mA @ 4.75 VDC)  |                                     |
| • <b>Recommended Fuse</b>                          |       | Type AGC fast acting glass fuse, 250 mA, 250 VAC, ADC p/n AGC-25<br>No fuse required when directly connected to a PLC or PC with recommended cable.   |                                     |
| • <b>Maximum Inrush Current</b>                    |       | 1 A for 500 µs  |                                     |
| • <b>Acceptable External Power Drop Duration</b>   |       | Maximum 1 ms  |                                     |
| <b>Environmental</b>                               |       |   |                                     |
| • <b>Operating Temperature</b>                     |       | 0 to 50 °C (32 to 122 °F) Maximum surrounding air temperature rating: 50 °C   |                                     |
| • <b>Storage Temperature</b>                       |       | -20 to +60 °C (-4 to +140 °F)   |                                     |
| • <b>Humidity</b>                                  |       | 5–95% RH (non-condensing)   |                                     |
| • <b>Environmental Air</b>                         |       | For use in Pollution Degree 2 Environment   |                                     |
| • <b>Vibration</b>                                 |       | IEC60068-2-6 (Test Fc), 5-9 Hz: 3.5 mm amplitude, 9-150 Hz: 1.0G, sweeping, at a rate of 1 octave/min. (±10%), 10 sweep cycles per axis on each of 3 mutually perpendicular axes  |                                     |
| • <b>Shock</b>                                     |       | IEC60068-2-27 (Test Ea), 15 G peak, 11 ms duration, three shocks in each direction per axis, on 3 mutually perpendicular axes (total of 18 shocks)  |                                     |
| • <b>Noise Immunity</b>                            |       | NEMA ICS3-304<br>RFI, (145 MHz, 440 MHz 10 W @ 10 cm)<br>Impulse 1000 V @ 1 µs pulse  |                                     |
| • <b>Enclosure</b>                                 |       | For use on a flat surface of Type 1, 4X enclosure (Indoor use only)   |                                     |
| • <b>Agency Approvals</b>                          |       | CE (EN61131-2), UL508, CUL Canadian C22.2 No. 142-M95, UL File E157382, CSA File 234884   |                                     |
| <b>Physical</b>                                    |       |   |                                     |
| • <b>Dimensions</b>                                |       | 4.488" (W) x 3.228" (H) x 1.593" (D) [114.0 mm x 82.0 mm x 40.5 mm]   |                                     |
| • <b>Enclosure Mounting Thickness Range</b>        |       | 0.04" – 0.2" [1 – 5 mm]   |                                     |
| • <b>Mounting Clip Screw Torque Range</b>          |       | 21 – 28 oz-in [0.15 – 0.2 Nm]   |                                     |
| • <b>Depth from bezel rear with options Module</b> |       | 2.295" [58.3 mm]  |                                     |
| • <b>Weight</b>                                    |       | 5.82 oz. (165 g)  |                                     |



**NOTE: The environmental specifications for the panels shown above are also applicable for the C-more Micro Accessories shown later in this section of the catalog.**



**For a list of supported protocols and cabling options refer to the 3" C-more Micro Protocols and cabling chart starting on page CK-24.**

| Supported Protocols / Drivers        |  |
|--------------------------------------|--|
| Serial - Panel port1 or port2*       | Serial - Panel port2 only *                      |
| AutomationDirect Productivity Series | Allen-Bradley DF1 Full Duplex                    |
| AutomationDirect CLICK               | Allen-Bradley DF1 Half Duplex                    |
| AutomationDirect Do-more             | Allen-Bradley PLC5 DF1                           |
| AutomationDirect K-sequence          | Allen-Bradley DH485                              |
| AutomationDirect DirectNET           | GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro) |
| AutomationDirect Modbus              | Mitsubishi FX                                    |
| Modicon Modbus RTU                   | Mitsubishi Q & QnA                               |
| Entivity Modbus RTU                  | Omron Host Link (C200 Adapter, C500)             |
|                                      | Omron FINS Serial (CJ1, CS1)                     |
|                                      | Siemens PPI (S7-200 CPU)                         |
|                                      | AutomationDirect GS Drives                       |
|                                      | AutomationDirect SOLO Temperature Controller     |

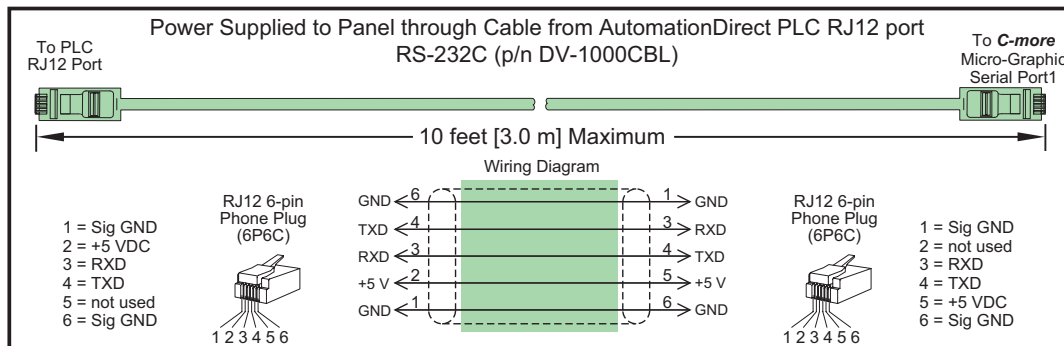
\*Note: Serial port 2 requires the use of EA-MG-SP1 adapter for C-more 3" Micro panels

# C-more 3" Micro Power Connection Wiring

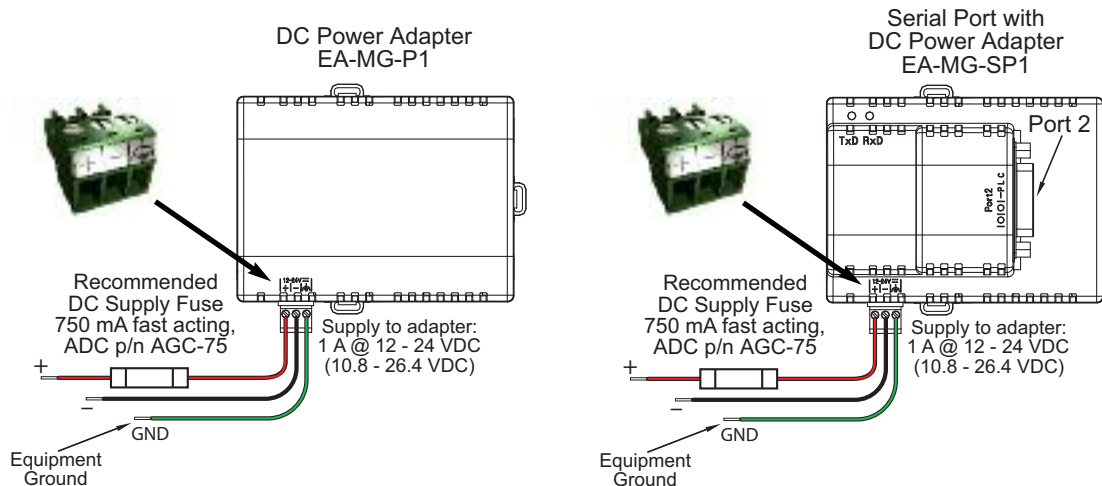
## Providing power to the touch panel

- The **C-more** 3" Micro panel is powered during programming from the PC through the USB to RS-232 Programming Cable Assembly, EA-MG-PGM-CBL.
- During operation, the **C-more** Micro panel can be powered from most **AutomationDirect** PLC's RJ12 serial communications port by using the DV-1000CBL communications cable.
- Or install either the DC Power Adapter, EA-MG-P1, or the Serial Port with DC Power Adapter, EA-MG-SP1, to the rear of the panel and supply the adapter from a Class 2, 12-24 VDC power source.

## 3" Panel powered from AutomationDirect PLC via communications cable

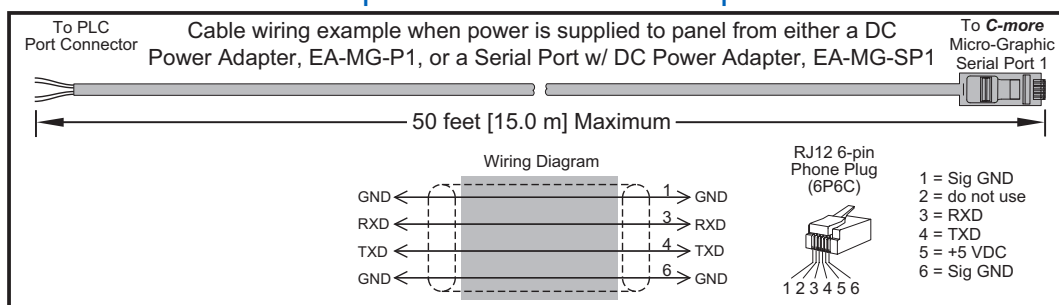


## 3" panel powered from a DC power adapter – wiring diagram



**NOTE: Recommended DC power supply to power either DC Power Adapter, AutomationDirect Part No. PSC-24-015 or PSC-24-030.**

## Maximum communication cable length when 3" panel is powered from an optional DC Power Adapter



# C-more 3" Micro PLC Connections

## Cabling requirements

The following cables can be used when connecting the **C-more 3" Micro** panel's built-in RJ12 serial port (Port1) with the Productivity Series, Do-more, CLICK, DL05, DL06, DL105, DL205, D3-350 and DL405 CPUs.

- DV-1000CBL — connects to Productivity Series, Do-more CLICK, DL05, DL06, DL105, DL205, D3-350 and D4-450 phone jack.
- D4-1000CBL — connects to all DL405 CPU 15-pin ports.

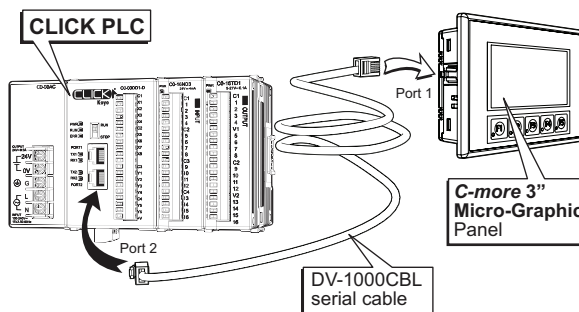
A maximum cable length of **10 feet** between the **C-more Micro** panel and the PLC is recommended when powering the panel from the PLC.

The Serial Port with DC Power Adapter module, EA-MG-SP1, can be used with the C-more 3" Micro panels if the application requires the use of RS-422 or RS-485. The serial port on the adapter, designated as port 2, can also be wired for RS-232. The use of the adapter permits greater cable length. See the Communication Protocols & Cabling Charts in this catalog section for details on the selection of various controllers, protocols, and connectivity.

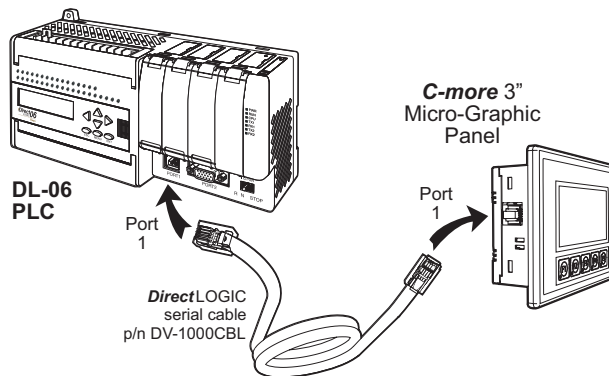
## Drivers for your Controller

- AutomationDirect Productivity Series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **DirectLOGIC** K-sequence, *DirectLOGIC DirectNET*, **DirectLOGIC** Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500) Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entivity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

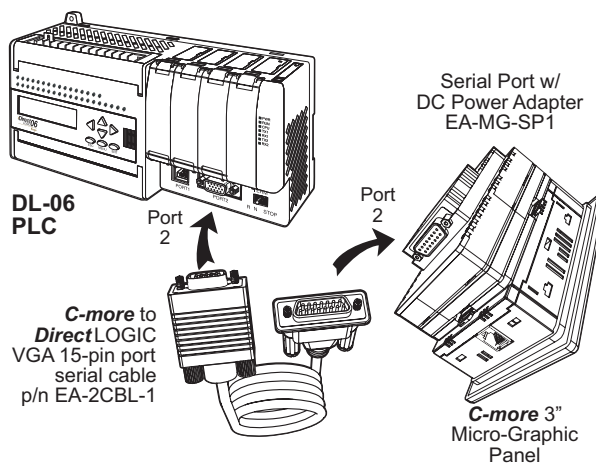
### C-more 3" Micro Port 1 to CLICK PLC Port 2



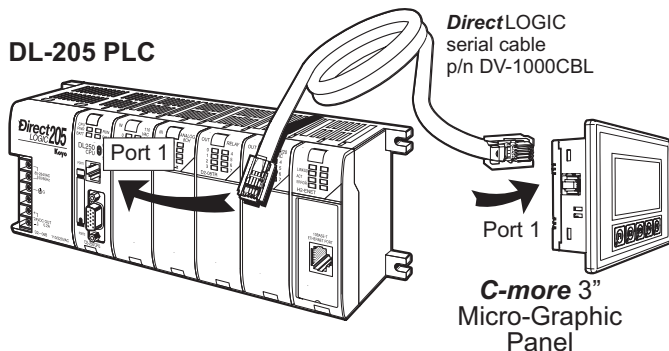
### C-more 3" Micro Port 1 to DL06 PLC Port 1



### C-more 3" Micro Port 2 to DL06 PLC Port 2



### C-more 3" Micro Port 1 to DL205 PLC Port 1





# C-more 3" Micro Communication Protocols & Cabling Chart

| Controller Compatibility & Connection Chart |              |                              |   |                             |  |                             |   |                             |   |                           |
|---|--------------|------------------------------|---|-----------------------------|--|-----------------------------|---|-----------------------------|---|---------------------------|
| PLC   |              |                              | C-more Micro Panel.   |                             |  |                             |   |                             |   |                           |
| Family                                      | CPU          | Port & Type                  | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                             |  |                             |   |                             |   |                           |
|   |              |                              | PLC Port Powered<br>Powered with 5 VDC from the connected PLC's comm. port.         |                             | DC Power Adapter<br>Powered from an external 24 VDC source using the DC Power Adapter, EA-MG-P1. |                             | Serial Port with DC Power Adapter<br>Powered from an external 24 VDC source using the Serial Port with DC Power Adapter, EA-MG-SP1. |                             |   |                           |
|   |              |                              | Using panel's RJ12 port 1   |                             | Using panel's RJ12 port 1  |                             | Using panel's RJ12 port 1   |                             | Using adapter's serial Port 2 15-pin D-sub - female |                           |
|   |              |                              | Protocol(s) Supported   | Components & Network Type   | Protocol(s) Supported  | Components & Network Type   | Protocol(s) Supported   | Components & Network Type   | Protocol(s) Supported                               | Components & Network Type |
| CLICK                                       | all versions | Port 1 RJ12 - 6 pin          | Automation Direct Modbus (CLICK)  | DV-1000CBL RS-232           | Automation Direct Modbus (CLICK)   | DV-1000CBL RS-232           | Automation Direct Modbus (CLICK)  | DV-1000CBL RS-232           | Automation Direct Modbus (CLICK)                    | EA-2CBL RS-232            |
|   |              | Port 2 RJ12 - 6 pin          |   | N/A                         |  | N/A                         |   | N/A                         |   | See Note RS-485           |
| Productivity Series                         | all versions | RS-232 RJ12 - 6 pin          | Automation Direct Productivity3000 Serial (P3-550)                                  | DV-1000CBL RS-232           | Automation Direct Productivity3000 Serial (P3-550)   | DV-1000CBL RS-232           | Automation Direct Productivity3000 Serial (P3-550)  | DV-1000CBL RS-232           | Automation Direct Productivity3000 Serial (P3-550)  | DV-1000CBL RS-232         |
|   |              | RS-485 Port Term block 3-pin |   | N/A                         |  | N/A                         |   | N/A                         |   | See Note RS-485           |
| Do-more                                     | all versions | Port 2 RJ12 - 6 pin          | Automation Direct Do-more Serial  | DV-1000CBL RS-232           | Automation Direct Do-more Serial   | DV-1000CBL RS-232           | Automation Direct Do-more Serial  | DV-1000CBL RS-232           | Automation Direct Do-more Serial                    | DV-1000CBL RS-232         |
| DirectLOGIC DL05 (see D0-DCM under DL06)    | all versions | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU  | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU                   | EA-2CBL RS-232            |
|   |              | Port 2 RJ12 - 6 pin          |   |                             |  |                             |   |                             |   |                           |
| DirectLOGIC DL06                            | all versions | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU  | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU                   | EA-2CBL RS-232            |
|   |              | Port 2 DB15HD (female)       |   | DV-1000CBL + FA-15HD RS-232 |  | DV-1000CBL + FA-15HD RS-232 |   | DV-1000CBL + FA-15HD RS-232 |   | EA-2CBL-1 RS-232          |
|   | D0-DCM       | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU  | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU                   | EA-2CBL RS-232            |
|   |              | Port 2 DB15HD (female)       |   | DV-1000CBL + FA-15HD RS-232 |  | DV-1000CBL + FA-15HD RS-232 |   | DV-1000CBL + FA-15HD RS-232 |   | EA-2CBL-1 RS-232          |
| DirectLOGIC DL105                           | all versions | Port 1 RJ12 - 6 pin          | K-sequence  | DV-1000CBL RS-232           | K-sequence   | DV-1000CBL RS-232           | K-sequence  | DV-1000CBL RS-232           | K-sequence  | EA-2CBL RS-232            |

**Note: See the C-more Micro Hardware User Manual, Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. Available for download at [www.automationdirect.com](http://www.automationdirect.com). PLC Compatibility & Connection Chart continued on next page.**



# C-more 3" Micro Communication Protocols & Cabling Chart (cont'd)

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

Appendix Book 1

Terms and Conditions

| Controller Compatibility & Connection Chart |                           |                                   |   |                                   |  |                                   |   |                             |   |  |
|---|---------------------------|-----------------------------------|---|-----------------------------------|--|-----------------------------------|---|-----------------------------|---|--|
| PLC   |                           |                                   | C-more Micro Panel  |                                   |  |                                   |   |                             |   |  |
| Family                                      | CPU                       | Port & Type                       | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                                   |  |                                   |   |                             |   |  |
|   |                           |                                   | PLC Port Powered<br>Powered with 5 VDC from the connected PLC's comm. port.         |                                   | DC Power Adapter<br>Powered from an external 24 VDC source using the DC Power Adapter, EA-MG-P1. |                                   | Serial Port with DC Power Adapter<br>Powered from an external 24 VDC source using the Serial Port with DC Power Adapter, EA-MG-SP1. |                             |   |  |
|   |                           |                                   | Using panel's RJ12 port 1   |                                   | Using panel's RJ12 port 1  |                                   | Using panel's RJ12 port 1   |                             | Using adapter's serial Port 2 15-pin D-sub - female |  |
|   |                           |                                   | Protocol(s) Supported   | Components & Network Type         | Protocol(s) Supported  | Components & Network Type         | Protocol(s) Supported   | Components & Network Type   | Protocol(s) Supported                               | Components & Network Type  |
| DirectLOGIC DL205                           | D2-230                    | Port 1 RJ12 - 6 pin               | K-sequence  | DV-1000CBL RS-232                 | K-sequence   | DV-1000CBL RS-232                 | K-sequence  | DV-1000CBL RS-232           | K-sequence  | EA-2CBL RS-232   |
|   | D2-240                    | Port 1 RJ12 - 6 pin               | K-sequence  | DV-1000CBL RS-232                 | K-sequence   | DV-1000CBL RS-232                 | K-sequence  | DV-1000CBL RS-232           | K-sequence  | EA-2CBL RS-232   |
|   |                           | Port 2 RJ12 - 6 pin               | K-sequence, DirectNET   |                                   | K-sequence, DirectNET  |                                   | K-sequence, DirectNET   |                             |   |  |
|   | D2-250-1                  | Port 1 RJ12 - 6 pin               | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232                 | K-sequence, DirectNET, Modbus RTU  | DV-1000CBL RS-232                 | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU                   | EA-2CBL RS-232   |
|   |                           | Port 2 DB15HD (female)            |   | DV-1000CBL + FA-15HD RS-232       |  | DV-1000CBL + FA-15HD RS-232       |   | DV-1000CBL + FA-15HD RS-232 |   | EA-2CBL-1 RS-232<br>See Note RS-422                                |
|   | D2-260                    | Port 1 RJ12 - 6 pin               | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232                 | K-sequence, DirectNET, Modbus RTU  | DV-1000CBL RS-232                 | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL RS-232           | K-sequence, DirectNET, Modbus RTU                   | EA-2CBL RS-232   |
|   |                           | Port 2 DB15HD (female)            |   | DV-1000CBL + FA-15HD RS-232       |  | DV-1000CBL + FA-15HD RS-232       |   | DV-1000CBL + FA-15HD RS-232 |   | EA-2CBL-1 RS-232<br>See Note RS-422<br>See Note RS-485 Modbus only |
|   | D2-DCM                    | Port 1 DB 25 pin (female)         | K-sequence, DirectNET, Modbus RTU   | See Note RS-232                   | K-sequence, DirectNET, Modbus RTU  | See Note RS-232                   | K-sequence, DirectNET, Modbus RTU   | See Note RS-232             | DirectNET   | EA-4CBL-2 RS-232<br>See Note RS-422                                |
|   | WINPLC                    | Port 1 RJ12 - 6 pin               | Modbus RTU  | DV-1000CBL RS-232                 | Modbus RTU   | DV-1000CBL RS-232                 | Modbus RTU  | DV-1000CBL RS-232           | Modbus RTU  | EA-2CBL RS-232   |
|   | DirectLOGIC DL305         | D3-330 or D3-340                  | D3-232-DCU DB 25 pin (female)   | N/A                               | DirectNET  | See Note RS-232                   | DirectNET   | See Note RS-232             | DirectNET   | EA-4CBL-2 RS-232   |
| D3-422-DCU DB 25 pin (female)               |                           |                                   | N/A   | N/A                               | N/A  | N/A                               | DirectNET   | See Note RS-422             |   |  |
| D3-340                                      |                           | Port 1 RJ11 - 4 pin               | N/A   | DirectNET                         | DirectNET  | OP-3CBL-1 RS-232                  | DirectNET   | OP-3CBL-1 RS-232            | DirectNET   | EA-3CBL RS-232   |
|   |                           | Port 2 RJ11 - 4 pin               | N/A   | DirectNET, Modbus RTU             | DirectNET, Modbus RTU  | DirectNET, Modbus RTU             | DirectNET, Modbus RTU   | DirectNET, Modbus RTU       |   |  |
| D3-350                                      |                           | Port 1 RJ12 - 6 pin               | K-sequence, DirectNET   | DV-1000CBL RS-232                 | K-sequence, DirectNET  | DV-1000CBL RS-232                 | K-sequence, DirectNET   | DV-1000CBL RS-232           | K-sequence, DirectNET                               | EA-2CBL RS-232   |
|   |                           | Port 2 DB 25 pin (female)         | N/A   | N/A                               | K-sequence, DirectNET, Modbus RTU  | See Note RS-232                   | K-sequence, DirectNET, Modbus RTU   | See Note RS-232             | K-sequence, DirectNET, Modbus RTU                   | EA-4CBL-2 RS-232<br>See Note RS-422                                |
| D3-DCM D3-350 only                          | Port 1 DB 25 pin (female) | K-sequence, DirectNET, Modbus RTU | See Note RS-232   | K-sequence, DirectNET, Modbus RTU | See Note RS-232  | K-sequence, DirectNET, Modbus RTU | See Note RS-232   | DirectNET                   | EA-4CBL-2 RS-232<br>See Note RS-422                 |  |

Note: See the C-more Micro Hardware User Manual, Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. Available for download at [www.automationdirect.com](http://www.automationdirect.com). PLC Compatibility & Connection Chart continued on next page.

# C-more 3" Micro Communication Protocols & Cabling Chart (cont'd)

| Controller Compatibility & Connection Chart |        |                           |   |   |  |   |   |   |   |                                     |
|---|--------|---------------------------|---|---|--|---|---|---|---|-------------------------------------|
| PLC   |        |                           | C-more Micro Panel  |   |  |   |   |   |   |                                     |
| Family                                      | CPU    | Port & Type               | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |   |  |   |   |   |   |                                     |
|   |        |                           | PLC Port Powered<br>Powered with 5 VDC from the connected PLC's comm. port.         |   | DC Power Adapter<br>Powered from an external 24 VDC source using the DC Power Adapter, EA-MG-P1. |   | Serial Port with DC Power Adapter<br>Powered from an external 24 VDC source using the Serial Port with DC Power Adapter, EA-MG-SP1. |   |   |                                     |
|   |        |                           | Using panel's RJ12 port 1   |   | Using panel's RJ12 port 1  |   | Using panel's RJ12 port 1   |   | Using adapter's serial Port 2 15-pin D-sub - female |                                     |
|   |        |                           | Protocol(s) Supported   | Components & Network Type                   | Protocol(s) Supported  | Components & Network Type                   | Protocol(s) Supported   | Components & Network Type                   | Protocol(s) Supported                               | Components & Network Type           |
| DirectLOGIC DL405                           | D4-430 | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence   | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence  | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence  | EA-4CBL-1 RS-232                    |
|   |        | Port 1 DB 25 pin (female) | N/A   |   | K-sequence, DirectNET  | DV-1000CBL & FA-CABKIT RS-232               | K-sequence, DirectNET   | DV-1000CBL & FA-CABKIT RS-232               | K-sequence, DirectNET                               | EA-4CBL-2 RS-232<br>See Note RS-422 |
|   | D4-440 | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence   | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence  | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence  | EA-4CBL-1 RS-232                    |
|   |        | Port 1 DB 25 pin (female) | N/A   |   | K-sequence, DirectNET  | DV-1000CBL & FA-CABKIT RS-232               | K-sequence, DirectNET   | DV-1000CBL & FA-CABKIT RS-232               | K-sequence, DirectNET                               | EA-4CBL-2 RS-232<br>See Note RS-422 |
|   | D4-450 | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence   | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence  | D4-1000CBL or DV-1000CBL & FA-CABKIT RS-232 | K-sequence  | EA-4CBL-1 RS-232                    |
|   |        | Port 1 DB 25 pin (female) | N/A   |   | K-sequence, DirectNET, Modbus RTU  | DV-1000CBL & FA-CABKIT RS-232               | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL & FA-CABKIT RS-232               | K-sequence, DirectNET, Modbus RTU                   | EA-4CBL-2 RS-232<br>See Note RS-422 |
|   |        | Port 2 RJ12 - 6 pin       | K-sequence, DirectNET   | DV-1000CBL RS-232                           | K-sequence, DirectNET  | DV-1000CBL RS-232                           | K-sequence, DirectNET   | DV-1000CBL RS-232                           | K-sequence, DirectNET                               | EA-2CBL RS-232                      |
|   |        | Port 3 DB 25 pin (female) | N/A   |   | N/A  |   | N/A   |   | K-sequence, DirectNET, Modbus RTU                   | See Note RS-422                     |
|   | D4-DCM | Port 1 DB 25 pin (female) | K-sequence, DirectNET, Modbus RTU   | See Note RS-232                             | K-sequence, DirectNET, Modbus RTU  | See Note RS-232                             | K-sequence, DirectNET, Modbus RTU   | See Note RS-232                             | DirectNET   | EA-4CBL-2 RS-232<br>See Note RS-422 |
|   | SOLO   | N/A                       | Data +/- terminals  | N/A   |  | N/A   |   | N/A   |   | SOLO Temperature Controller         |
| GS Drives                                   | N/A    | RS-485 Interface          | N/A   |   | N/A  |   | N/A   |   | GS Drives Serial GS Drives TCP/IP (GS-EDRV)         | See Note RS-485                     |

**Note:** See the C-more Micro Hardware User Manual, Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. Available for download at [www.automationdirect.com](http://www.automationdirect.com). PLC Compatibility & Connection Chart continued on next page.





# C-more 3" Micro Communication Protocols & Cabling Chart (cont'd)

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

Appendix Book 1

Terms and Conditions

| Controller Compatibility & Connection Chart |  |                          |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|---|--|--------------------------|---|---------------------------|--|---------------------------|---|---------------------------|---|---------------------------|-----|-----|-----|-----|-----------------|-----------------------|-----|-----|-----|-----|-----------------|-----------------------|-----|-----|-----|-----|-----|-----------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----------------|-----------------------|-----|-----|-----|-----|-----|-----------------|------------------------|-----|-----|-----|-----|---------------------|-----------------|-----|-----|-----|-----|-----|-----|-----------------------|---------------------|-----|-----|-----|-----|-----|-----|-----------|---------------------|-----------------|-----------------|-----|-----------------|
| PLC   |  |                          | C-more Micro Panel  |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Family                                      | CPU  | Port & Type              | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  |                          | PLC Port Powered<br>Powered with 5 VDC from the connected PLC's comm. port.         |                           | DC Power Adapter<br>Powered from an external 24 VDC source using the DC Power Adapter, EA-MG-P1. |                           | Serial Port with DC Power Adapter<br>Powered from an external 24 VDC source using the Serial Port with DC Power Adapter, EA-MG-SP1. |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  |                          | Using panel's RJ12 port 1   |                           | Using panel's RJ12 port 1  |                           | Using panel's RJ12 port 1   |                           | Using adapter's serial Port 2 15-pin D-sub - female |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  |                          | Protocol(s) Supported   | Components & Network Type | Protocol(s) Supported  | Components & Network Type | Protocol(s) Supported   | Components & Network Type | Protocol(s) Supported                               | Components & Network Type |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Allen-Bradley MicroLogix                    | 1000, 1100, 1200, 1400, 1500                               | 8-pin mini-din port      | N/A   | N/A                       | N/A  | N/A                       | N/A   | N/A                       | DF1 Full Duplex                                     | EA-MLOGIX-CBL RS-232      |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | RJ45 8-pin phone plug    |   |                           |  |                           |   |                           | DH485/AIC/AIC+                                      | EA-DH485-CBL RS-232       |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Allen-Bradley SLC500                        | 5/03, 5/04, 5/05   | 9-pin D-sub port         |   |                           |  |                           |   |                           | N/A   | N/A                       | N/A | N/A | N/A | N/A | DF1 Full Duplex | EA-SLC-232-CBL RS-232 |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | RJ45 8-pin phone plug    |   |                           |  |                           |   |                           |   |                           |     |     |     |     | DH485/AIC/AIC+  | EA-DH485-CBL RS-232   |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Allen-Bradley ControlLogix                  | all  | 9-pin D-sub port         |   |                           |  |                           |   |                           |   |                           |     |     |     |     | N/A             | N/A                   | N/A | N/A | N/A | N/A | DF1 Full Duplex | EA-SLC-232-CBL RS-232 |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Allen-Bradley CompactLogix                  | all  | 9-pin D-sub port         |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     | N/A             | N/A                   | N/A | N/A | N/A | N/A | N/A | DF1 Full Duplex | EA-SLC-232-CBL RS-232 |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | Allen-Bradley FlexLogix  |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     | all             | 9-pin D-sub port      | N/A | N/A | N/A | N/A | N/A | N/A | N/A | DF1 Full Duplex | EA-SLC-232-CBL RS-232 |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Allen-Bradley PLC5                          | all  |                          |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 | 25-pin D-sub port     |     |     |     |     |     |     |     | N/A             | N/A                   | N/A | N/A | N/A | N/A | N/A | DF1 Full Duplex | EA-PLC5-232-CBL RS-232 |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | RJ45 8-pin phone plug    |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     | DH485/AIC/AIC+  | EA-DH485-CBL RS-232   |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| GE  | 90/30  | 15-pin D-sub port        |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     | N/A             | N/A                   |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     | N/A             | N/A                    | N/A | N/A | N/A | N/A | EA-90-30-CBL RS-422 |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | RJ45 Port 1              |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     | SNPX                | See Note RS-232 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | 15-pin D-sub port Port 2 |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     | EA-90-30-CBL RS-422 |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Mitsubishi                                  | Melsec FX Series   | 25-pin D-sub port        |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     | N/A                 | N/A             | N/A | N/A | N/A | N/A | N/A | N/A | CPU Direct            | EA-MITSU-CBL RS-422 |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | 8-pin mini-din port      |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     | EA-MITSU-CBL-1 RS-422 |                     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  | Q / QnA                  |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     | 9-pin D-sub port      | See Note RS-232     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
|   |  |                          |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     | 6-pin mini-din port   | See Note RS-232     |     |     |     |     |     |     |           |                     |                 |                 |     |                 |
| Omron                                       | C200 (Adapter), C500                                       | 25-pin D-sub port        |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     | N/A                   | N/A                 | N/A | N/A | N/A | N/A | N/A | N/A | Host Link | EA-OMRON-CBL RS-232 |                 |                 |     |                 |
|   |  | 9-pin D-sub port         |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     | FINS      | See Note RS-232     |                 |                 |     |                 |
| Modicon                                     | 984 CPU, Quantum 113 CPU, AEG Modicon Micro Series 110 CPU | varies                   | N/A   | N/A                       | N/A  | N/A                       | N/A   | N/A                       |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     | N/A       | N/A                 | Modbus RTU      | See Note RS-232 |     |                 |
|   |  | varies                   |   |                           |  |                           |   |                           |   |                           |     |     |     |     |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     | See Note RS-232 |                 |     |                 |
| Siemens                                     | S7-200 CPU   | 9-pin D-sub port 0 or 1  |   |                           |  |                           |   |                           | N/A   | N/A                       | N/A | N/A | N/A | N/A |                 |                       |     |     |     |     |                 |                       |     |     |     |     |     |                 |                       |     |     |     |     |     |     |     |                 |                       |     |     |     |     |     |                 |                        |     |     |     |     |                     |                 |     |     |     |     |     |     |                       |                     |     |     |     |     |     |     |           |                     | N/A             | N/A             | PPI | See Note RS-485 |

Note: See the C-more Micro Hardware User Manual, Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. Available for download at [www.automationdirect.com](http://www.automationdirect.com). Available cables with descriptions shown on the next page.

# C-more 3" Micro Communication Cables and Cable Kits

| Cable Description   | Cable Part Number      | Price |
|---|------------------------|-------|
| <b>Cables for direct connect to panel's serial Port1 (Panel powered from PLC's serial port.)</b>  |                        |       |
| AutomationDirect Productivity Series, Do-more, CLICK, <b>Direct</b> LOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C). | <b>DV-1000CBL</b>      | \$    |
| <b>Direct</b> LOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C).   | <b>D4-1000CBL</b>      | \$    |
| <b>Direct</b> LOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C).<br><b>Use with DV-1000CBL cable.</b>                                 | <b>FA-15HD</b>         | \$    |
| <b>Direct</b> LOGIC PLC 15-pin D-sub port, DL405 (RS-232C).<br><b>Use with DV-1000CBL cable.</b>  | <b>FA-CABKIT</b>       | \$    |
| <b>Direct</b> LOGIC PLC RJ-11 port, D3-340 (RS-232C).   | <b>OP-3CBL-1</b>       | \$    |
| <b>Cables used with serial Port2</b>  |                        |       |
| AutomationDirect Productivity Series, Do-more, CLICK, <b>Direct</b> LOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C). | <b>EA-2CBL</b>         | \$    |
| <b>Direct</b> LOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C).  | <b>EA-2CBL-1</b>       | \$    |
| <b>Direct</b> LOGIC PLC RJ-11 port, D3-340 (RS-232C).   | <b>EA-3CBL</b>         | \$    |
| <b>Direct</b> LOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C).   | <b>EA-4CBL-1</b>       | \$    |
| <b>Direct</b> LOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCM's (RS-232C).  | <b>EA-4CBL-2</b>       | \$    |
| Allen-Bradley MicroLogix 1000, 1100, 1200, 1400 & 1500 (RS-232C)  | <b>EA-MLOGIX-CBL</b>   | \$    |
| Allen-Bradley SLC 5-03/04/05, ControlLogix, CompactLogix, FlexLogix DF1 port (RS-232C)  | <b>EA-SLC-232-CBL</b>  | \$    |
| Allen-Bradley PLC-5 DF1 port (RS-232C)  | <b>EA-PLC5-232-CBL</b> | \$    |
| Allen-Bradley MicroLogix, SLC-5-01/02/03, PLC5 DH485 port (RS-232C)   | <b>EA-DH485-CBL</b>    | \$    |
| GE 90/30 and 90/70, Micro 90, VersaMax Micro (Port 2) 15-pin D-sub port (RS-422A)   | <b>EA-90-30-CBL</b>    | \$    |
| MITSUBISHI FX Series 25-pin port (RS-422A)  | <b>EA-MITSU-CBL</b>    | \$    |
| MITSUBISHI FX Series 8-pin mini-DIN (RS-422A)   | <b>EA-MITSU-CBL-1</b>  | \$    |
| OMRON Host Link C200 Adapter, C500 (RS-232C)  | <b>EA-OMRON-CBL</b>    | \$    |



DV-1000CBL



D4-1000CBL



OP-3CBL-1



FA-15HD



FA-CABKIT



EA-2CBL-1



EA-2CBL



EA-4CBL-1



EA-3CBL



EA-MLOGIX-CBL



EA-4CBL-2



EA-PLC5-232-CBL



EA-SLC-232-CBL



EA-DH485-CBL



EA-90-30-CBL



EA-MITSU-CBL



EA-MITSU-CBL-1



EA-OMRON-CBL



# C-more 3" Micro Panel Accessories

## 8-button Keypad Bezel

The 8-button keypad bezel can be used with both the touch and non-touch **C-more 3" Micro** panels. The keypad includes four directional arrow cursor buttons, and one each of an ESCAPE, MENU, CLEAR and ENTER button. The keypad is intended to be used with the numeric entry object (Style 3) to allow changing of a

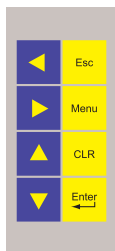
value, and can also be used to navigate & select objects when using the non-touch panel version. The keypad bezel is designed for easy drop-in of a **C-more 3" Micro** panel. No panel configuration required.

Part No. EA-MG-BZ1



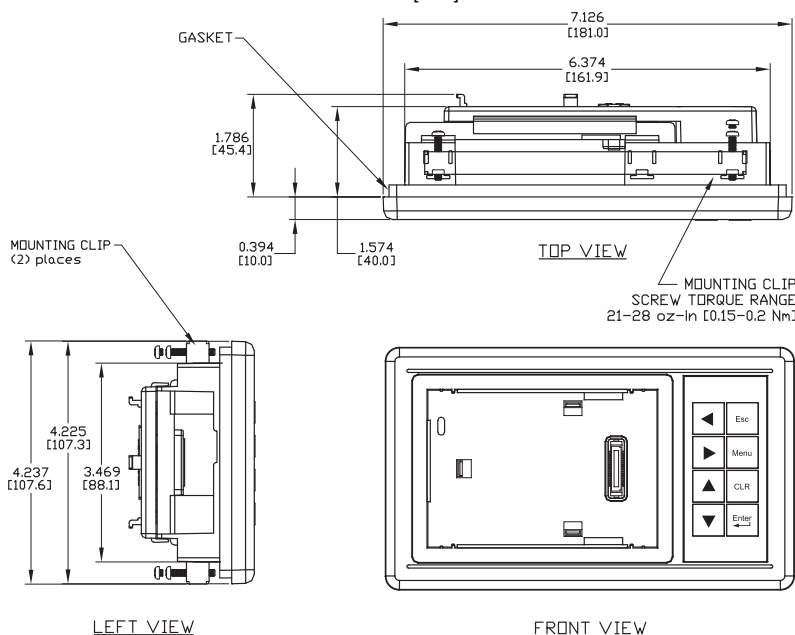
\$64.00

Four directional cursor buttons, and ESC, MENU, CLEAR and ENTER buttons.

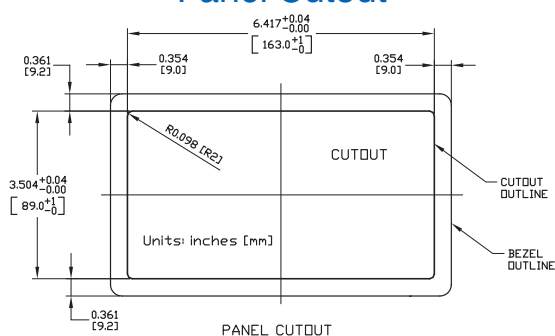


### Dimensions

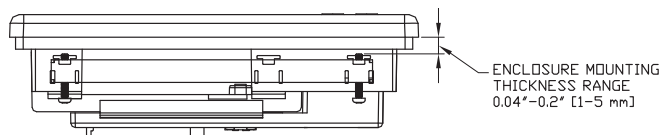
Units: inches [mm]



### Panel Cutout



### Panel Thickness



### 8-Button Keypad Bezel Specifications

| Part Number                            | EA-MG-BZ1  |
|--|--|
| <b>General</b>                         |  |
| • <b>C-more Micro Panels Supported</b> | EA1-S3ML, EA1-S3MLW, EA1-S3ML-N, EA1-S3MLW-N   |
| • <b>Connection</b>                    | Connects with expansion connector on the rear of a <b>C-more 3" Micro</b> panel. An expansion connector is also located on the rear of the keypad bezel to allow the EA-MG-P1 DC Power Adapter, or the EA-MG-SP1 Serial Port with DC Power Adapter to be attached. |
| • <b>Power Consumption</b>             | None   |
| • <b>Keypad Button Life</b>            | Minimum of 500,000 cycles  |
| • <b>Enclosure Mounting</b>            | (2) mounting clips, EA-MG-BZ1-BRK, included.<br>Note: The <b>C-more 3" Micro</b> panel is installed into the keypad bezel using the EA-MG-S3ML-BRK mounting clips that are supplied with the panel.  |
| <b>Physical</b>                        |  |
| • <b>Dimensions</b>                    | 7.126" (W) x 4.225" (H) x 2.180" (D)<br>[181.0 mm x 107.3 mm x 55.4 mm]  |
| • <b>Weight</b>                        | 7.05 oz. [200 g]   |
| • <b>Environmental</b>                 | See environmental specifications at the beginning of this catalog section.   |

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# C-more 3" Micro Panel Accessories

## 20-Button Keypad Bezel

The 20-button keypad bezel can be used with both the touch and non-touch **C-more** 3" Micro panels. The keypad includes four directional arrow cursor buttons, a full numeric keypad, and one each of an ESCAPE, MENU, CLEAR and ENTER button. The keypad is intended to be used with the numeric entry object (Style 3) to allow changing of a value, and can also be used to navi-

gate & select objects when using the non-touch panel version. The numeric buttons can be used to enter a new value. The keypad bezel is designed for easy drop-in of a **C-more** 3" Micro panel. No panel configuration required.

**Part No. EA-MG-BZ2**

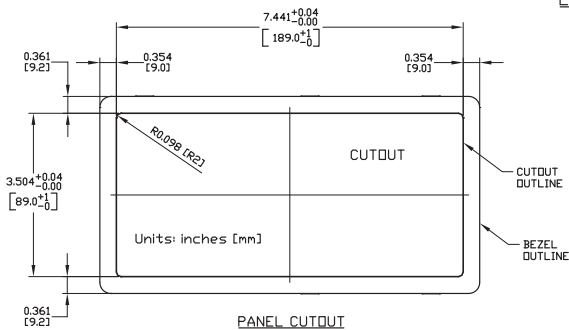


**\$140.00**

**Four directional cursor buttons, numeric buttons, and ESC, MENU, CLEAR and ENTER buttons.**

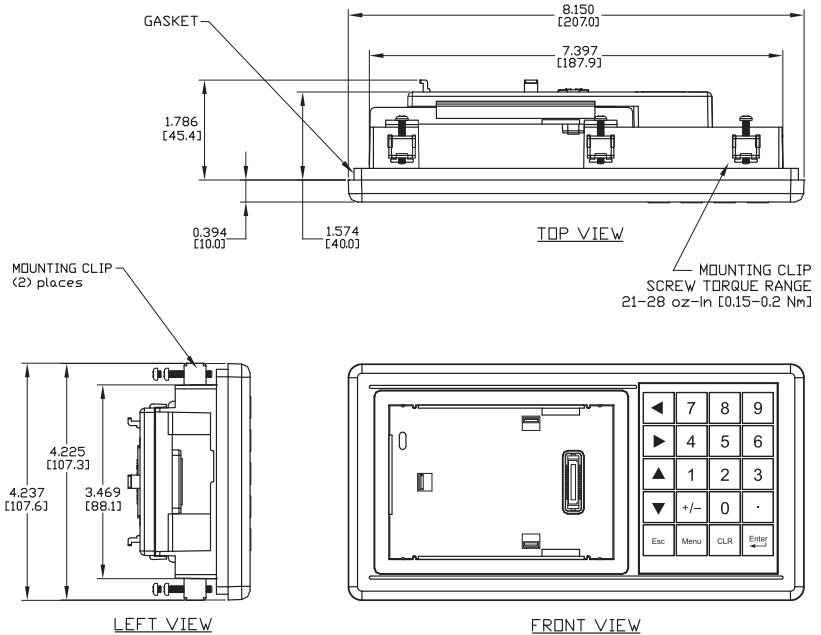


### Panel Cutout

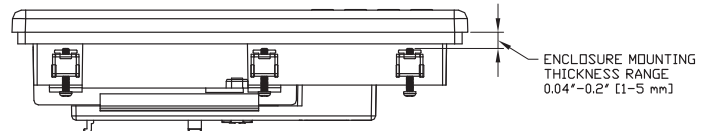


### Dimensions

Units: inches [mm]



### Panel Thickness



| 20-Button Keypad Bezel Specifications  |  |
|--|--|
| <b>Part Number</b>                     | <b>EA-MG-BZ2</b>   |
| <b>General</b>                         |  |
| • <b>C-more Micro Panels Supported</b> | EA1-S3ML, EA1-S3MLW, EA1-S3ML-N, EA1-S3MLW-N   |
| • <b>Connection</b>                    | Connects with expansion connector on the rear of a 3" <b>C-more</b> Micro panel. An expansion connector is also located on the rear of the keypad bezel to allow the EA-MG-P1 DC Power Adapter, or the EA-MG-SP1 Serial Port with DC Power Adapter to be attached. |
| • <b>Power Consumption</b>             | None   |
| • <b>Keypad Button Life</b>            | Minimum of 500,000 cycles  |
| • <b>Enclosure Mounting</b>            | (6) mounting clips, EA-MG-BZ2-BRK, included.<br>Note: The <b>C-more</b> 3" Micro panel is installed into the keypad bezel using the EA-MG-S3ML-BRK mounting clips that are supplied with the panel.  |
| <b>Physical</b>                        |  |
| • <b>Dimensions</b>                    | 8.150" (W) x 4.225" (H) x 2.180" (D)<br>[207.0 mm x 107.3 mm x 55.4 mm]  |
| • <b>Weight</b>                        | 7.40 oz. [210 g]   |
| <b>Environmental</b>                   | See environmental specifications at the beginning of this catalog section.   |



# C-more 3" Micro Panel Accessories

## DC Power Adapter

The **C-more 3"** Micro panel is designed to use the 5 VDC power that is available from an RJ12 serial communications port found on some **AutomationDirect** PLC's. However, for other devices that do not supply power through their serial communications port, the EA-MG-P1 DC power adapter or EA-MG-SP1 serial port with DC power adapter must be used. Both adapters

require power from a Class 2, 12-24 VDC source. The EA-MG-P1 DC Power Adapter for **C-more 3"** Micro panels is designed to easily snap on to the rear of a **C-more 3"** Micro panel or the rear of an optional Keypad Bezel being used with a **C-more 3"** Micro panel.

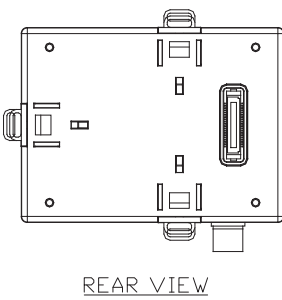
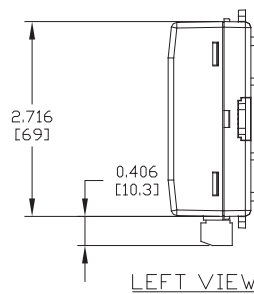
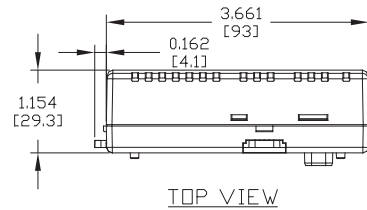
Part No. EA-MG-P1



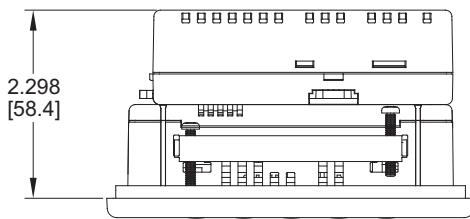
\$52.00

### Dimensions

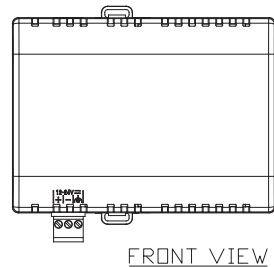
Units: inches [mm]



### Panel overall depth with adapter installed



Units: inches [mm]



FRONT VIEW

### DC Power Adapter Specifications

| Part Number              | EA-MG-P1   |
|--------------------------|--|
| <b>Electrical</b>        |  |
| • Input Voltage          | 12-24 VDC  |
| • Input Voltage Range    | 10.8-26.4 VDC  |
| • Power Consumption      | 100 mA @ 24 VDC  |
| • Maximum Power          | 2.90 Watts   |
| • Maximum Inrush Current | 5 A @ 500 µs with 12 VDC applied, 10 A @ 500 µs with 24 VDC applied        |
| • Recommended Fuse       | Type AGC fast acting glass fuse, 750 mA, 250 VAC, ADC #AGC-75              |
| • Connector Type         | 3-pin screw type terminal block  |
| <b>Physical</b>          |  |
| • Dimensions             | 3.823" (W) x 3.284" (H) x 1.331" (D)<br>[97.1 mm x 83.4 mm x 33.8 mm]      |
| • Weight                 | 2.8 oz. [80 g]   |
| <b>Environmental</b>     | See environmental specifications at the beginning of this catalog section. |



**NOTE: Recommended DC power supply to power either DC Power Adapter, AutomationDirect Part No. PSC-24-015 or PSC-24-030.**

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Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

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Productivity 3000

Universal Field I/O

Software

C-More HMI

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ViewMarq Industrial Marquees

Other HMI

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# C-more 3" Micro Panel Accessories

## Serial Port with DC Power Adapter

The **C-more** 3" Micro panel is designed to use the 5 VDC power that is available from an RJ12 serial communications port of some **AutomationDirect** PLC's. However, for other devices that do not supply power through their serial communications port, the EA-MG-P1 DC power adapter or EA-MG-SP1 serial port with DC power adapter must be used. The EA-MG-SP1, with D-Sub 15-pin RS-232/RS-422/485 serial port, can be

used to connect to a PLC using RS-232 or RS-422/485. The adapter requires power from a Class 2, 12-24 VDC source. This optional Serial Port with DC Power Adapter for **C-more** 3" Micro panels is designed to easily snap on to the rear of a **C-more** 3" Micro panel or the rear of an optional Keypad Bezel being used with a **C-more** 3" Micro panel.

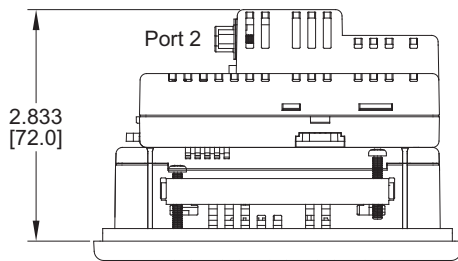
### Part No. EA-MG-SP1



Supports:  
RS-232,  
RS-485,  
& RS-422

**\$89.00**

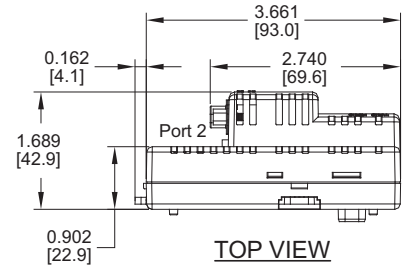
Panel overall depth  
with adapter installed



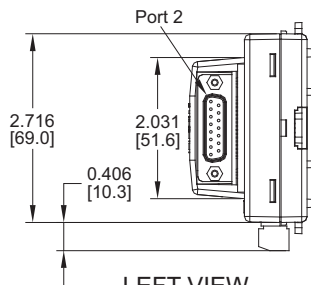
Units: inches [mm]

## Dimensions

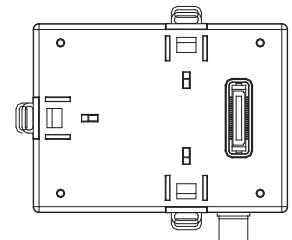
Units: inches [mm]



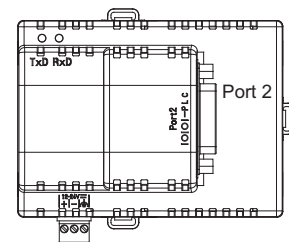
TOP VIEW



LEFT VIEW



REAR VIEW



FRONT VIEW

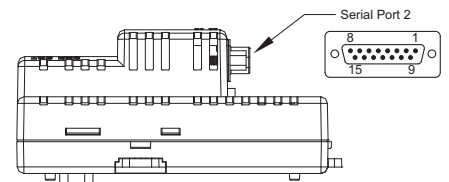
| Serial Port w/ DC Power Adapter Specifications                         |  |
|--|--|
| <b>Part Number</b>   | EA-MG-SP1  |
| <b>Serial PLC Interface</b>  |  |
| • <b>Interface Standard</b>  | RS-232 & RS-485/422  |
| • <b>Adjustable Settings from Software (Dependent on PLC Protocol)</b> | Baud rate: 9600, 19200 or 38400 bits/sec<br>Data bits: 7/8 bits<br>Parity: None, Odd/Even<br>Stop bits: 2/1 bits |
| • <b>Connector Type</b>  | 15-pin D-sub connector (female)  |
| <b>Electrical</b>  |  |
| • <b>Input Voltage</b>   | 12-24 VDC  |
| • <b>Input Voltage Range</b>   | 10.8-26.4 VDC  |
| • <b>Power Consumption</b>   | 100 mA @ 24 VDC  |
| • <b>Maximum Power</b>   | 2.90 Watts   |
| • <b>Maximum Inrush Current</b>  | 5 A @ 500 μs with 12 VDC applied, 10 A @ 500 μs with 24 VDC applied  |
| • <b>Recommended Fuse</b>  | Type AGC fast acting glass fuse, 750 mA, 250 VAC, ADC #AGC-75  |
| • <b>Connector Type</b>  | 3-pin screw type terminal block  |
| <b>Physical</b>  |  |
| • <b>Dimensions</b>  | 3.823" (W) x 3.284" (H) x 1.331" (D)<br>[97.1 mm x 83.4 mm x 33.8 mm]  |
| • <b>Weight</b>  | 2.8 oz. [80 g]   |
| • <b>Environmental</b>   | See environmental specifications at the beginning of this catalog section.                                       |



**NOTE: To power either DC Power Adapter, AutomationDirect Part No. PSC-24-015 or PSC-24-030.**

## PLC Serial Communications Port 2

| Pin | Signal     | Pin | Signal         | Pin | Signal         |
|-----|------------|-----|----------------|-----|----------------|
| 1   | Frame GND  | 6   | LE             | 11  | TXD+ (422/485) |
| 2   | TXD (232C) | 7   | CTS (232C)     | 12  | TXD- (422/485) |
| 3   | RXD (232C) | 8   | RTS (232C)     | 13  | Term. Resistor |
| 4   | Future     | 9   | RXD+ (422/485) | 14  | do not use     |
| 5   | Logic GND  | 10  | RXD- (422/485) | 15  | do not use     |







# C-more 3" Micro Panel Accessories

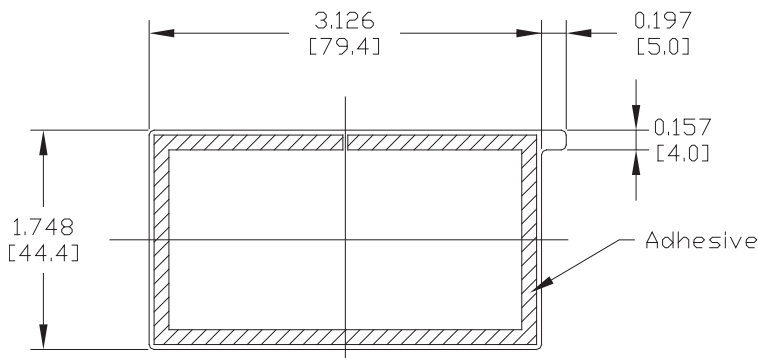
## Clear Screen Overlay

Optional clear screen overlay used to protect **C-more 3" Micro** displays from minor scratches and wear. Package contains 5 clear screen overlays.

Part No. EA-MG-COV-CL

### Dimensions

Units: inches [mm]



## Clear screen overlay installation

Step 1



Remove the overlay from the package

Step 2



Remove the paper backing from the overlay

Step 3



Align the overlay with the screen and press the adhesive firmly into place

Step 4



Remove the protective film\*



**\*Note:** The overlay cover ships with a thin protective film on the face that should be carefully removed after installation.

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Do-More T1H PLC

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DirectLOGIC DL05/06

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# C-more 3" Micro Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost **C-more 3" Micro** panel components.

## Replacement parts at a glance:

| Part Number           | Description  | Price |
|-----------------------|--|-------|
| <b>EA-MG-S3ML-BRK</b> | Replacement mounting clip for <b>C-more 3" Micro</b> panels (pk of 2)  | \$    |
| <b>EA-MG-BZ1-BRK</b>  | Replacement mounting clip for <b>C-more 3" Micro</b> keypad bezel p/n EA-MG-BZ1 (pk of 2)  | \$    |
| <b>EA-MG-BZ2-BRK</b>  | Replacement mounting clip for <b>C-more Micro</b> keypad bezel p/n EA-MG-BZ2 and <b>C-more 6" Micro</b> panels and bezels (pk of 8)  | \$    |
| <b>EA-MG-DC-CON</b>   | Replacement adapter DC power connector for optional p/n EA-MG-P1 and p/n EA-MG-SP1 power adapters used with <b>C-more 3" Micro</b> panels and <b>C-more 6" Micro</b> panels and bezels (pk of 5) | \$    |
| <b>EA-MG-S3ML-GSK</b> | Replacement mounting gasket for <b>C-more 3" Micro</b> panels  | \$    |
| <b>EA-MG-BZ1-GSK</b>  | Replacement mounting gasket for <b>C-more 3" Micro</b> keypad bezel p/n EA-MG-BZ1  | \$    |
| <b>EA-MG-BZ2-GSK</b>  | Replacement mounting gasket for <b>C-more 3" Micro</b> keypad bezel p/n EA-MG-BZ2  | \$1   |
| <b>EA-MG-S3ML-FKL</b> | Replacement function key label insert for <b>C-more 3" Micro</b> panels (pk of 10; 5 blank, 5 F1-F5)   | \$    |

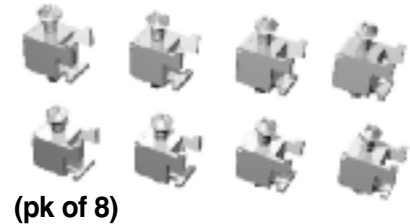
**Panel Mounting Clips**  
Part No. EA-MG-S3ML-BRK



**Keypad Bezel 1 Mounting Clips**  
Part No. EA-MG-BZ1-BRK



**Keypad Bezel 2 Mounting Clips**  
Part No. EA-MG-BZ2-BRK



**DC Power Connector**  
Part No. EA-MG-DC-CON



**3" Panel Gasket**  
Part No. EA-MG-S3ML-GSK



**3" Keypad Bezel 1 Gasket**  
Part No. EA-MG-BZ1-GSK



**3" Keypad Bezel 2 Gasket**  
Part No. EA-MG-BZ2-GSK



**3" Panel Function Keys Label Inserts**  
Part No. EA-MG-S3ML-FKL





# C-more 4" Micro Panels Overview

## Overview

**C-more 4"** Micro panel is a full color, TFT model that offers touch screen capability and customizable graphics! The 4" panel mounts in a standard 1/4 DIN cutout.

In addition to the simple panel configuration software, a very helpful feature is the built-in project simulator. The project simulator allows you to view your project on the PC screen as it would appear on the panel and to test all your screens before downloading the project to the panel. You can simulate your entire project at any stage of development and even simulate the function keys and keypad bezel.

## Getting started

Installing the software and configuring the **C-more 4"** Micro panel is simple. You will need the following to successfully connect and configure a project for the panel:

- **C-more 4"** Micro panel
- **C-more** Micro Programming Software EA-MG-PGMSW (Downloadable version available from the **AutomationDirect** web site at no charge.)
- **C-more** Micro USB Programming Cable such as USB-CBL-AB6, used to connect between a PC and the Micro panel's built-in serial port. The panel will operate in Low-Power mode when powered by the PC and the screen brightness is diminished.
- Power source – An external Class 2, 12-24 VDC power source is required for normal High-Power operation. Recommended power supplies are AutomationDirect part numbers PSC-24-015 or PSC-24-030.
- Personal computer – to run the **C-more** Micro programming software
- Communications Cable (serial) – to connect the **C-more** Micro panel to your PLC or other controller with which the panel will communicate.

## Drivers for your Controller

**C-more 4"** Micro panels have the following drivers available for connection to Productivity Series, CLICK, **DirectLOGIC** and many other devices:

- AutomationDirect Productivity Series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **DirectLOGIC** K-sequence, **DirectLOGIC DirectNET**, **DirectLOGIC** Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500)  
Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entivity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

### EA1-T4CL

\$575.00



**NOTE: EA1-T4CL requires Software and Firmware Version 3.00 or later. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

## Features

### Bitmaps

- 320 X 240 pixel graphical display supports bitmaps
- Use bitmap images of pushbuttons, switches, indicators, your company logo
- Use provided library of bitmaps
- Create your own library of bitmaps

### Text - 40 lines

- 40 lines by 80 characters of static text in Landscape Orientation
- 54 lines by 59 characters of static text in Portrait Orientation
- Look up text, scroll up to 128 characters
- 30 lines by 40 characters of dynamic text, embedded variables, on/off phrases, scroll up to 40 characters
- Scroll text object with up to 128 characters

### Beep

- Beep to indicate an alarm
- Beep for a special message
- Beep to verify when button is pressed

### Bar graphs

- Line, vertical, horizontal, skinny, fat, multiple

### Data entry

- Pop-up numeric key pad on the screen
- Increment/decrement a value by touching arrows

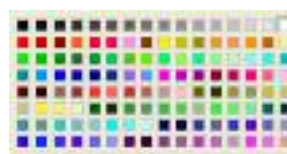
### Recipes

Each recipe button transfers up to 99 values from PLC source registers to PLC destination registers and/or from the recipe table to PLC destination registers.

### 32K Colors

The TFT panel has a palette of 32K colors available to make full use of color for objects and bitmaps as well as backgrounds.

### Up to 999 Screens



**C-more** Micro supports up to 999 screens. Screen quantity is limited by memory usage which is determined by the total bitmaps, objects, etc. that are used.

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Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

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Productivity Controller Overview

Productivity 3000

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Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI


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# C-more 4" Micro Panels Overview

| <b>C-more 4" TFT Micro Panel</b> |  |              |
|----------------------------------|--|--------------|
| <b>Part Number</b>               | <b>Description</b>   | <b>Price</b> |
| <b>EA1-T4CL</b>                  |  4-inch C-more Micro Touch Panel with TFT Color LCD, 320 x 240 dot, 32,768 color display with LED backlight, 5 user-defined function keys with LED indicators. Two built-in ports (USB Type-B port and 15-pin D-sub RS-232/422/485 port). Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). | \$           |



**Note: Software and Firmware Version 3.00 or later is required with model EA1-T4CL. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

| <b>C-more Micro Programming Software</b> |  |              |
|--|--|--------------|
| <b>Part Number</b>                       | <b>Description</b>   | <b>Price</b> |
| <b>EA-MG-PGMSW</b>                       |  <b>C-more</b> Micro panel Windows-based configuration software. Requires Windows 2000 with Service Pack 4, XP Home or Professional 32-bit with Service Pack 2, Vista, Windows 7 32-bit or 64-bit or Windows 8 32-bit or 64 bit. Requires USB port connection from PC to touch panel. Includes CD-ROM. Programming cable sold separately. Downloadable version available from the Web site at no charge. Software Help Files included in download. Programs all C-more Micro Panels | \$           |
| <b>USB-CBL-AB3</b>                       |  The C-more Micro TFT panel requires a USB A-to-B type cable to connect a personal computer to the panel for programming. (Note: The TFT panel includes a built-in USB to serial converter and the USB driver will appear as a COM port to the PC when properly installed. The USB port supplies 5VDC to the TFT panel so that no external power supply is required for programming.)   | \$           |
| <b>USB-CBL-AB6</b>                       |  | \$           |
| <b>USB-CBL-AB10</b>                      |  | \$           |
| <b>USB-CBL-AB15</b>                      |  | \$           |

| <b>C-more 4" Micro Panel Accessories</b> |  |              |
|--|--|--------------|
| <b>Part Number</b>                       | <b>Description</b>   | <b>Price</b> |
| <b>EA-4-COV2</b>                         |  Optional clear screen overlay used to protect <b>C-more 4"</b> Micro displays from minor scratches and wear. Package contains 3 clear screen overlays. | \$           |



**For a list of supported protocols and cabling options refer to the 4" & 6" C-more Micro Protocols and cabling chart starting on page CK-61.**



# C-more 4" Micro TFT Touch Panel

Model EA1-T4CL **C-more** 4" Micro touch panel has a 4.1-inch TFT LCD 320 x 240 dot display and a palette of 32K colors for customizing objects, screen backgrounds and displaying bitmap graphics. It features five user-defined function keys, each key with a user-defined red LED indicator. The panel can display up to 40 lines by 80 characters of static text and up to 30 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics in landscape orientation. Portrait orientation can display 54 lines by 59 characters of static text and 40 lines by 40 characters of dynamic text. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). The **C-more** 4" Micro TFT panels are powered from a Class 2, 12-24 VDC power supply\*.

Part No. EA1-T4CL



\$575.00

## Features

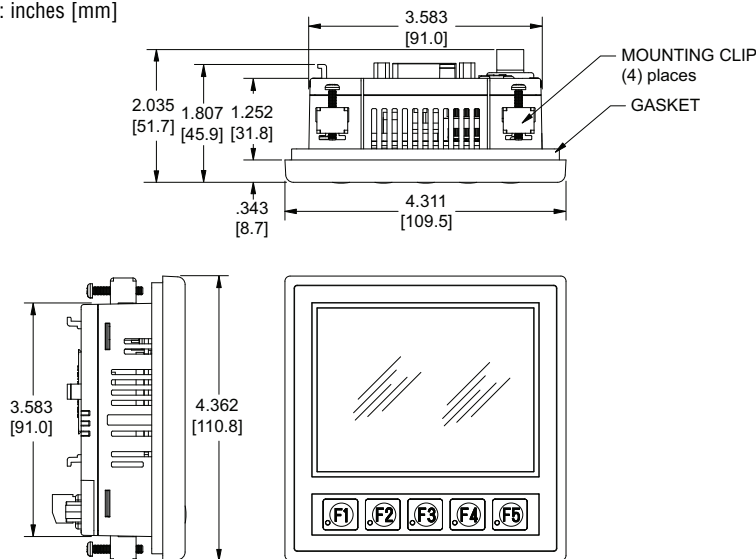
- Standard 1/4 DIN mounting cutout
- Touch screen display
- Free downloadable programming software
- 320 x 240 Dot display with up to 40 lines by 80 characters of text and graphics in landscape mode
- Up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 32K colors
- Optional replaceable clear screen overlay
- 3,276 KB memory
- Built-in USB type B programming port
- Built-in 15-pin serial communications port
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and red LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



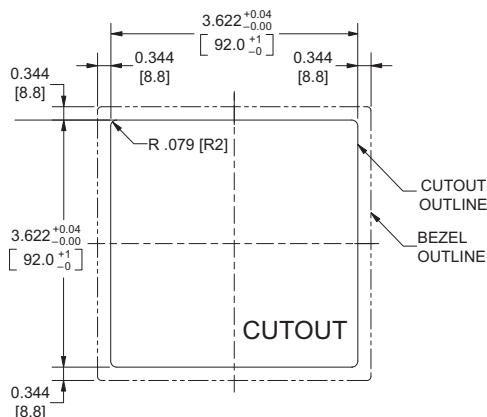
**\*NOTE: The EA1-T4CL can be powered through Port1 when connected to a PC for programming, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 4" panel's power connection. An external Class 2, 12-24 VDC power source must be used when the panel is installed in its application.**

## Dimensions

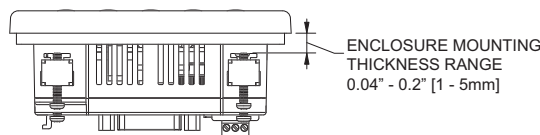
Units: inches [mm]



## Panel Cutout - Standard 1/4 DIN



## Panel Thickness



**NOTE: The C-more 4" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more 4" Micro panels will not fit in cutouts for DV-1000, EZText, Optimate panels or C-more panels.**

# C-more 4" Micro Specifications

| Specifications  |   |                        |
|---|---|------------------------|
| <b>Description:</b>   | 320 x 240 dots LCD display (Landscape Mode),<br>Five user defined keypad function buttons, and five user defined LED's  |                        |
| <b>Display:</b>   |   |                        |
| • <b>Type</b>   | 4.1" TFT Color LCD, graphical characters  |                        |
| • <b>Resolution</b>   | 320 (W) x 240 (H) dots (Landscape Mode)<br>240 (W) x 320 (H) dots (Portrait Mode)   |                        |
| • <b>Color</b>  | 32768 colors  |                        |
| • <b>Display Brightness (Reference)</b>                             | <b>USB Bus Power (Programming)</b>  | <b>High Power Mode</b> |
|   | 180 nits (typ)  | 360 nits (typ)         |
| • <b>Viewing Area Size</b>  | 3.357" (W) x 2.54" (H) [85.26 mm x 64.62 mm]  |                        |
| • <b>Active Area Size</b>   | 3.250" (W) x 2.438" (H) [82.56 mm x 61.92 mm]   |                        |
| • <b>Brightness</b>   | Adjusted from the panel's built-in configuration setup menu   |                        |
| • <b>Viewing Angle (Landscape Mode)</b>                             | 3 o'clock axis → 35 degrees<br>6 o'clock axis → 50 degrees<br>12 o'clock axis → 20 degrees  |                        |
| <b>Backlight:</b>   |   |                        |
| • <b>Type</b>   | LED   |                        |
| • <b>Color</b>  | White   |                        |
| • <b>User Replaceable</b>   | No  |                        |
| <b>Touch Screen:</b>  |   |                        |
| • <b>Type</b>   | Analog touch panel  |                        |
| • <b>Operation</b>  | 82 gram force [0.8 N] maximum   |                        |
| • <b>Life</b>   | Minimum of 1,000,000 cycles   |                        |
| <b>Features:</b>  |   |                        |
| • <b>User Memory</b>  | 3276 kBytes   |                        |
| • <b>Number of Screens</b>  | Up to 999 – limited by project memory usage   |                        |
| • <b>Beep (Internal)</b>  | Yes   |                        |
| • <b>Keypad Function Buttons</b>                                    | Five user defined function key buttons with the ability to custom label with an overlay.<br>Minimum of 500,000 cycles   |                        |
| • <b>Keypad Function Button LEDs</b>                                | Each function key button includes a red LED that can be user programmed.  |                        |
| • <b>Programming Port</b>   | USB Type B  |                        |
| • <b>Serial Communications</b>                                      | 15-pin D-sub serial communications port (RS-232, RS-485 / 422).   |                        |
| <b>Screen Objects:</b>  |   |                        |
| • <b>Functional Devices</b>   | Push Button, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Screen Change Push Button, Screen Selector, Adjust Contrast, Function, Key Configuration Object, Real Time Graphics Line Graph, Analog Meter. |                        |
| • <b>Static Shapes</b>  | Lines, Rectangles, Circles and Frames   |                        |
| • <b>Displayable Fonts</b>  | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts   |                        |
| <b>C-more 4" Micro panel specifications continued on next page.</b> |   |                        |



# C-more 4" Micro Specifications

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Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

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| Specifications (cont'd)                          |  |  |
|--|--|--|
| <b>Electrical:</b>                               |  |  |
|  | <b>USB Bus Power (Programming)</b>   | <b>High Power Mode</b>   |
| • <b>Input Voltage Range</b>                     | 5.0 VDC (4.75 – 5.25 VDC)  | 12/24 VDC (10.2 – 26.4 VDC)                                      |
| • <b>Input Power</b>                             | Supplied from a PC USB.  | Supplied from an external Class 2, 12-24 VDC power source        |
| • <b>Power Consumption</b>                       | 2W   | 4.5 W  |
| • <b>Recommended Fuse</b>                        | No fuse required when directly connected to a PC with recommended cable.   | Type AGC fast acting glass fuse, 750 mA, 250 VAC, ADC p/n AGC-75 |
| • <b>Maximum Inrush Current</b>                  | 4.5 A for 800 $\mu$ s  | 8 A for 800 $\mu$ s  |
| • <b>Acceptable External Power Drop Duration</b> | Maximum 1 ms   |  |
| <b>Environmental:</b>                            |  |  |
| • <b>Operating Temperature</b>                   | 0 to 50 °C (32 to 122 °F)<br>Maximum surrounding air temperature rating: 50 °C   |  |
| • <b>Storage Temperature</b>                     | -20 to +60 °C (-4 to +140 °F)  |  |
| • <b>Humidity</b>                                | 5–95% RH (non-condensing)  |  |
| • <b>Environmental Air</b>                       | For use in Pollution Degree 2 environment  |  |
| • <b>Vibration</b>                               | IEC60068-2-6 (Test Fc), 5-9 Hz: 3.5 mm amplitude, 9-150 Hz: 1.0G, sweeping, at a rate of 1 octave/min. ( $\pm$ 10%), 10 sweep cycles per axis on each of 3 mutually perpendicular axes |  |
| • <b>Shock</b>                                   | IEC60068-2-27 (Test Ea), 15 G peak, 11 ms duration, three shocks in each direction per axis, on 3 mutually perpendicular axes (total of 18 shocks)                                     |  |
| • <b>Noise Immunity</b>                          | NEMA ICS3-304<br>RFI, (145 MHz, 440 MHz 10 W @ 10 cm)<br>Impulse 1000 V @ 1 $\mu$ s pulse  |  |
| • <b>Enclosure</b>                               | For use on a flat surface of Type 1, 4X enclosure (Indoor use only)  |  |
| • <b>Agency Approvals</b>                        | CE (EN61131-2), UL508, CUL Canadian C22.2 No. 142-M95, UL File E157382, CSA 234884   |  |
| <b>Physical:</b>                                 |  |  |
| • <b>Dimensions</b>                              | 4.311" (W) x 4.362" (H) x 2.035" (D) [109.5 mm x 110.8 mm x 51.7 mm]   |  |
| • <b>Enclosure Mounting Thickness Range</b>      | 0.04" – 0.2" [1 – 5 mm]  |  |
| • <b>Mounting Clip Screw Torque Range</b>        | 21 – 28 oz-in [0.15 – 0.2 Nm]  |  |
| • <b>Weight</b>                                  | 14.99 oz. (425 g)  |  |

| PLC Drivers                          |  |
|--------------------------------------|--|
| Serial - port2 only                  |  |
| AutomationDirect Productivity Series | Allen-Bradley DF1 Half Duplex                    |
| AutomationDirect CLICK               | Allen-Bradley DF1 Full Duplex                    |
| AutomationDirect Do-more             | Allen-Bradley PLC5 DF1                           |
| AutomationDirect K-sequence          | Allen-Bradley DH485                              |
| AutomationDirect DirectNET           | GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro) |
| AutomationDirect Modbus              | Mitsubishi FX                                    |
| AutomationDirect SOLO                | Mitsubishi (Q, QnA)                              |
| AutomationDirect GS Drives           | Omron Host Link (C200 Adapter, C500)             |
| Modicon Modbus RTU                   | Omron FINS Serial (CJ1, CS1)                     |
| Entity Modbus RTU                    | Siemens PPI (S7-200 CPU)                         |



**NOTE: EA1-T4CL cannot be powered by a PLC and cannot communicate with a PLC through Port1**



**For a list of supported protocols and cabling options refer to the 4" & 6" C-more Micro Protocols and cabling chart starting on page CK-61.**



# C-more 4" Micro Power Connection Wiring

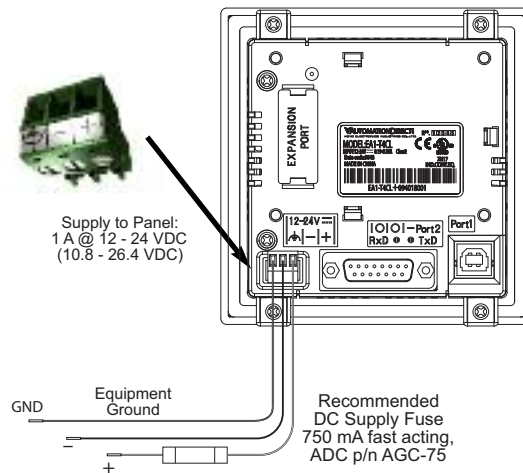
## Providing power to the touch panel

- 1.) The panel is powered by a Class 2, 1 Amp @ 12-24 VDC power source in normal operation. Recommended power supplies are AutomationDirect part number PSC-24-015 or PSC-24-030.
- 2.) C-more Micro TFT panel EA1-T4CL is powered during programming through a USB A-to-B cable such as USB-CBL-AB6. The panel will operate in Low-power mode when powered by the PC and result in a dim screen.\*
- 3.) C-more Micro TFT panel EA1-T4CL cannot be powered from a PLC.



**\*NOTE:** The EA1-T4CL can be powered through Port1 when connected to a PC for programming, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 4" panel's power connection. An external Class 2, 12-24 VDC power source must be used when the panel is installed in its application.

## 4" Panel powered from a DC power source – wiring diagram



**NOTE:** Recommended DC power supply to power the C-more Micro Panel, AutomationDirect Part No. PSC-24-015 or PSC-24-030.



# C-more 4" Micro Panel Accessories

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

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C-More Micro HMI

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## D-SUB 15-pin 90-degree Communication Port Adapter

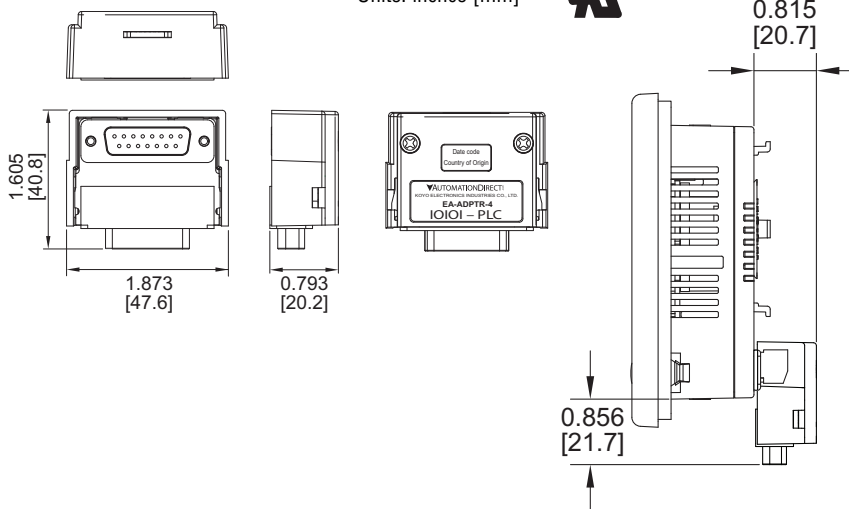
The EA-ADPTR-4 adapter plugs into the 15-pin serial port on the rear of a 4" panel to allow a controller communication cable to be plugged in at a 90 degree angle to reduce panel depth requirements. 15-pin straight through pin-out. UL Recognized.

**Part No.**  
**EA-ADPTR-4**



### Dimensions

Units: inches [mm]



## D-SUB 15-pin to Terminal Block Adapter

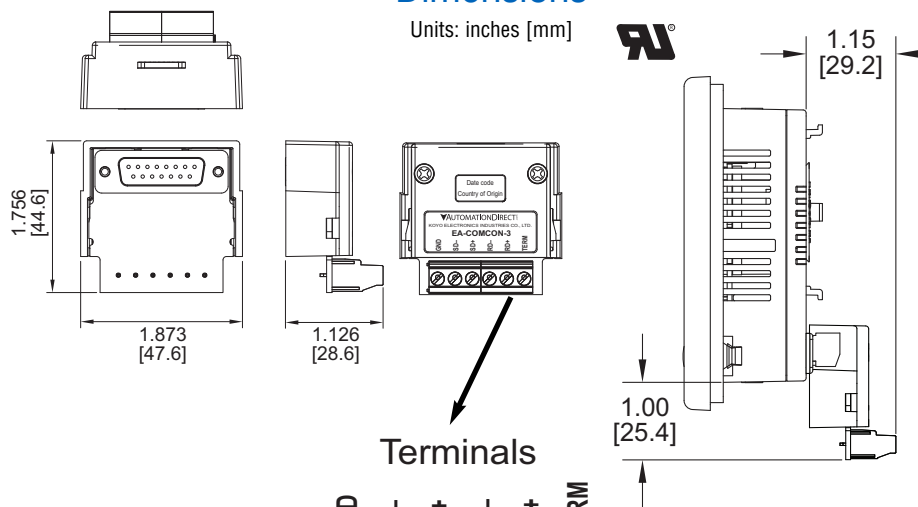
The EA-COMCON-3 adapter plugs into the 15-pin serial port on the rear of a 4" panel to allow wire terminal connections for an RS-422/RS-485/DH-485 PLC communication cable. UL Recognized.

**Part No.**  
**EA-COMCON-3**

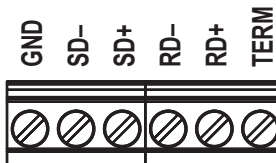


### Dimensions

Units: inches [mm]



**Terminals**



# C-more 4" Micro Panel Accessories

## Clear Screen Overlay

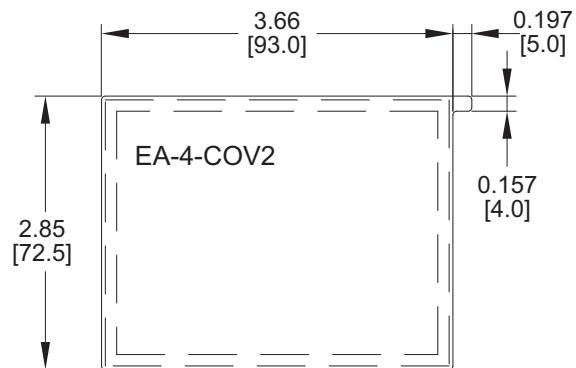
Optional clear screen overlay used to protect C-more 4" Micro displays from minor scratches and wear. Package contains 3 clear screen overlays.

**Part No. EA-4-COV2**



### Dimensions

Units: inches [mm]



## Clear Screen Overlay Installation

**Step 1**



**Remove the overlay from the package**

**Step 2**



**Remove the paper backing from the overlay**

**Step 3**



**Align the overlay with the screen and press the adhesive firmly into place**

**Step 4**



**Remove the protective film\***



**\*Note: The overlay cover ships with a thin protective film on the face that should be carefully removed after installation.**



# C-more 4" Micro Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost **C-more** 4" Micro panel components.

## Replacement parts at a glance:

| Part Number          | Description  | Price   |
|----------------------|--|---------|
| <b>EA-MG-BZ2-BRK</b> | Replacement mounting bracket for 4" and 6" <b>C-more</b> Micro panels and 6" keypad bezels. Also used to mount the <b>C-more</b> 3" Micro bezel EA-MG-BZ2. (pk of 8) | \$18.50 |
| <b>EA-MG-DC-CON</b>  | Replacement adapter DC power connector (pk of 5)   | \$14.00 |
| <b>EA-MG4-GSK</b>    | Replacement mounting gasket for <b>C-more</b> 4" Micro panels  | \$8.75  |
| <b>EA-MG4-FKL</b>    | Replacement function key label insert for <b>C-more</b> 4" Micro panels (pk of 4; 3 blank, 1 F1-F5 for landscape)  | \$14.00 |

**Panel Mounting Clips**  
Part No. EA-MG-BZ2-BRK



(pk of 8)

**DC Power Connector**  
Part No. EA-MG-DC-CON

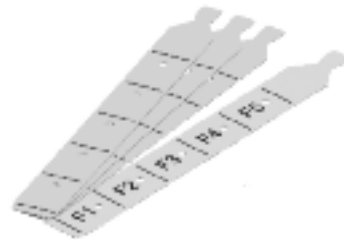


(pk of 5)

**Panel Gasket**  
Part No. EA-MG4-GSK



**Function Keys Label Inserts**  
Part No. EA-MG4-FKL



(pk of 4; 3 blank, 1 F1-F5 for landscape)

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

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# Learn our products for free

## How to Videos



"How to" product focused tutorials serve up short

(two to five minute) snapshots that give specific guidance on using products, particularly ones with programming software. You'll find over 80 videos on C-more micro touch panel configuration, and many newly posted topics for the Do-more and Productivity3000 controllers, including MATH and DATA instructions, as well as the high-speed counter I/O modules.

## In-depth Product Tutorials



More in-depth video series take you from zero to detailed knowledge

on a host of popular topics. These series may contain up to 15 videos, leading you through the basics of PLCs, motion control, and process (PID) control, using AutomationDirect products integrated into demonstration systems that relate to real applications.

## Kickstart



"Kickstart" videos are short overviews focusing on newly

introduced products – you'll see the parts, learn the basics of the features and applications, all in just a few minutes. They're perfect for getting the highlights of what's new from AutomationDirect.

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# C-more 6" Micro Panels Overview

## Overview

**C-more 6"** Micro panels are joined by a full color, TFT model! **C-more 6"** Micro panels offer touch screen capability and customizable graphics. Two optional Keypad Bezels are available for either Horizontal or Vertical panel orientation.

In addition to the simple panel configuration software, a very helpful feature is the built-in project simulator. The project simulator allows you to view your project on the PC screen as it would appear on the panel and to test all your screens before downloading the project to the panel. You can simulate your entire project at any stage of development. With version 2.50 or later, simulate the function keys and keypad bezel.

## Getting started

Installing the software and configuring the **C-more 6"** Micro panel is simple. You will need the following to successfully connect and configure a project for the panel:

- **C-more 6"** Micro panel
- **C-more** Micro Programming Software EA-MG-PGMSW (Downloadable version available from the **AutomationDirect** web site at no charge.)
- **C-more** Micro USB Programming Cable such as USB-CBL-AB6, used to connect between a PC and the Micro panel's built-in serial port. The panel will operate in Low-Power mode when powered by the PC and the screen brightness is diminished.
- Power source – An external Class 2, 12-24 VDC power source is required for normal High-Power operation. Recommended power supplies are AutomationDirect part numbers PSC-24-015 or PSC-24-030.
- Personal computer – to run the **C-more** Micro programming software
- Communications Cable (serial) – to connect the **C-more** Micro panel to your controller.

## Drivers for your Controller

**C-more 6"** Micro panels have the following drivers available for connection to Productivity Series, CLICK, **DirectLOGIC** and many other devices:

- AutomationDirect Productivity Series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **DirectLOGIC** K-sequence, **DirectLOGIC DirectNET**, **DirectLOGIC** Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500) Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entivity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

### EA1-S6ML



\$530.00

Shown in Landscape (Horizontal) mode



### EA1-S6MLW



\$530.00

Shown in Portrait (Vertical) mode

### EA1-T6CL



\$720.00

Shown in Portrait (Vertical) mode

**NOTE: EA1-T6CL requires Software and Firmware Version 2.50 or later. Software and Firmware Version 2.0 or later is required with models EA1-S6ML and EA1-S6MLW. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

## Features

### Bitmaps

- 320 X 240 pixel graphical display supports bitmaps
- Use bitmap images of pushbuttons, switches, indicators, your company logo
- Use provided library of bitmaps
- Create your own library of bitmaps

### Text - 40 lines

- 40 lines by 80 characters of static text in Landscape Orientation
- 53 lines by 60 characters of static text in Portrait Orientation
- Look up text, scroll up to 128 characters
- 40 lines by 40 characters of dynamic text, embedded variables, on/off phrases, scroll up to 40 characters
- Scroll text object with up to 128 characters

### Beep

- Beep to indicate an alarm
- Beep for a special message
- Beep to verify when button is pressed

### Bar graphs

- Line, vertical, horizontal, skinny, fat, multiple

### Data entry

- Pop-up numeric key pad on the screen
- Increment/decrement a value by touching arrows
- Two optional keypad bezels, Landscape and Portrait

### Recipes

Each recipe button transfers up to 99 values from PLC source registers to PLC destination registers and/or from the recipe table to PLC destination registers.

### 5 dynamic background colors - EA1-S6ML and EA1-S6MLW

Screen background can be controlled by the program to choose one of five colors depending upon the model. Choices for model EA1-S6ML are green, lime, yellow, amber and red. Model EA1-S6MLW background colors include white, pink1, pink2, pink3 and red. For example, use a red background for an alarm condition or a yellow background on a caution screen that will be easily noticed.



EA1-S6ML

### 32K Colors - EA1-T6CL

The TFT panel has a palette of 32K colors available to make full use of color for objects and bitmaps as well as backgrounds.






EA1-S6MLW



### Up to 999 Screens

**C-more** Micro supports up to 999 screens. Screen quantity is limited by memory usage which is determined by the total bitmaps, objects, etc. that are used.

# C-more 6" Micro Panels Overview



| C-more 6" STN Micro Panels |   |   |       |
|----------------------------|---|---|-------|
| Part Number                |   | Description   | Price |
| EA1-S6ML                   |  | 5.7-inch <b>C-more</b> Micro Touch Panel with STN LCD monochrome, 320x240 dot display. The panel has red and green LED backlights. Supports 5 selectable backlight colors (Red, Green, Amber, Lime, and Yellow). Includes 5 user-defined function keys with LED indicators. 2 built in serial Ports (RS-232 RJ12 port and 15 pin D-sub RS-232/422/485). NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).  | \$    |
| EA1-S6MLW                  |  | 5.7-inch <b>C-more</b> Micro Touch Panel with STN LCD monochrome, 320x240 dot display. The panel has white and red LED backlights. Supports 5 selectable backlight colors (White, Pink1, Pink2, Pink3, and Red). Includes 5 user-defined function keys with LED indicators. 2 built in serial Ports (RS-232 RJ12 port and 15 pin D-sub RS-232/422/485). NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).  | \$    |
| EA-MG-PGM-CBL              |  | The STN monochrome panels require the USB to serial assembly to connect a personal computer to the panel for programming. (Note: This cable assembly uses the PC's USB port and converts the signals to serial transmissions. The USB port supplies 5 VDC to the Micro panel for configuration operations). Assembly includes standard USB A-type connector to B-type connector cable, custom converter, and an RS232C cable with RJ12 modular connector on each end. | \$    |



**\*NOTE: C-more Micro panels with the letter "W" in the part number designate units with 5 selectable background colors of White, Pink1, Pink2, Pink3 and Red. Part numbers without the letter "W" are provided with 5 selectable background colors of Green, Red, Amber, Yellow and Lime.**



**Note: Software and Firmware Version 2.0 or later is required with models EA1-S6ML and EA1-S6MLW. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

| C-more 6" TFT Micro Panel |   |  |       |
|---------------------------|---|--|-------|
| Part Number               |   | Description  | Price |
| EA1-T6CL                  |  | 5.7-inch C-more Micro Touch Panel with TFT Color LCD, 320 x 240 dot, 32,768 color display with LED backlight. 5 user-defined function keys with LED indicators. Two built-in ports (USB Type-B port and 15-pin D-sub RS-232/422/485 port). Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).                             | \$    |
| USB-CBL-AB3               |  | The C-more Micro TFT panel requires a USB A-to-B type cable to connect a personal computer to the panel for programming. (Note: The TFT panel includes a built-in USB to serial converter and the USB driver will appear as a COM port to the PC when properly installed. The USB port supplies 5VDC to the TFT panel so that no external power supply is required for programming.) | \$    |
| USB-CBL-AB6               |   |  | \$    |
| USB-CBL-AB10              |   |  | \$    |
| USB-CBL-AB15              |   |  | \$    |



**Note: Software and Firmware Version 2.5 or later is required with model EA1-T6CL. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**



# C-more 6" Micro Panels Overview

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI


ViewMarq Industrial Marquees




Other HMI

Communications

Appendix Book 1

Terms and Conditions

| C-more Micro Programming Software |   |  |       |
|-----------------------------------|---|--|-------|
| Part Number                       |   | Description  | Price |
| EA-MG-PGMSW                       |  | <b>C-more</b> Micro panel Windows-based configuration software. Requires Windows 2000 with Service Pack 4, XP Home or Professional 32-bit with Service Pack 2, Vista, Windows 7 32-bit or 64-bit or Windows 8 32-bit or 64 bit. Requires USB port connection from PC to touch panel. Includes CD-ROM. Programming cable sold separately. Downloadable version available from the Web site at no charge. Software Help Files included in download. Programs all C-more Micro Panels | \$    |

| C-more 6" Micro Panel Accessories |   |   |       |
|-----------------------------------|---|---|-------|
| Part Number                       |   | Description   | Price |
| EA-MG6-BZ2                        |    | For Landscape (Horizontal) Mounted Panels. 20-button keypad bezel with numeric keypad for <b>C-more</b> 6" Micro panels, 4 arrow adjust keys, and ESCAPE, MENU, CLEAR and ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad to enter numeric data. Designed for easy drop-in of the Micro panels.  | \$    |
| EA-MG6-BZ2P                       |   | For Portrait (Vertical) Mounted Panels. 21-button keypad bezel with numeric keypad for <b>C-more</b> 6" Micro panels, 4 arrow adjust keys, and ESCAPE, MENU, CLEAR and (2) ENTER buttons. Helps to reduce screen wear in heavy-duty applications where operators can use the keypad to enter numeric data. Designed for easy drop-in of the Micro panels. | \$    |
| EA-6-COV2                         |  | Optional clear screen overlay used to protect <b>C-more</b> 6" Micro displays from minor scratches and wear. Package contains 3 clear screen overlays.  | \$    |



**For a list of supported protocols and cabling options refer to the 4" & 6" C-more Micro Protocols and cabling chart starting on page CK-61.**





# C-more 6" Micro STN Touch Panel

Model EA1-S6ML **C-more** 6" Micro touch panel has a 5.7-inch STN LCD monochrome 320 x 240 dot display and five selectable LED-driven backlight colors including Green, Red, Amber, Yellow and Lime. It features five user-defined function keys, each key with a user-defined red LED indicator. The panel can display up to 40 lines by 80 characters of static text and up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics in landscape orientation. Portrait orientation can display 53 lines by 60 characters of static text and 40 lines by 40 characters of dynamic text. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). The **C-more** 6" Micro STN panels are powered from a Class 2, 12-24 VDC power supply or can operate in low-power mode\* when powered from the serial communications port of select AutomationDirect PLCs.

Part No. EA1-S6ML

Shown in Landscape (Horizontal) mode



## Features

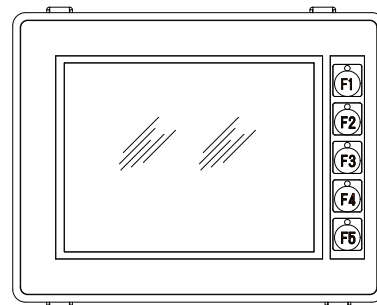
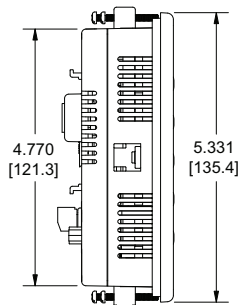
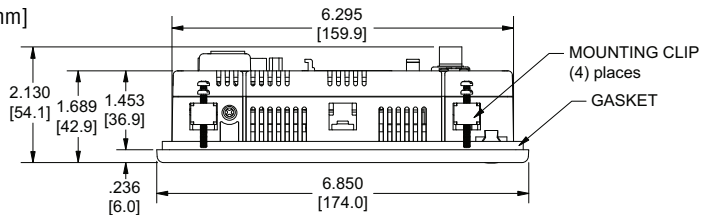
- Touch screen display
- Free downloadable programming software
- 320 x 240 Dot display with up to 40 lines by 80 characters of text and graphics in landscape mode
- Up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 5-Color LED backlight for longer life; Green, Red, Amber, Yellow and Lime
- 2 optional keypad bezels, 20-button landscape and 21-button portrait
- Optional replaceable clear screen overlay
- 1,792 KB memory
- Built-in RJ12 serial communications port
- Built-in 15-pin serial communications port
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and red LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



**\*NOTE: When EA1-S6ML or EA1-S6MLW is powered through Port1 from a connected PLC or PC, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 6" panel's power connection. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application.**

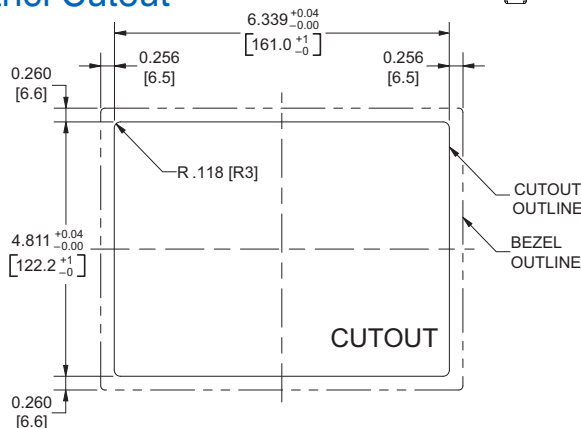
## Dimensions

Units: inches [mm]

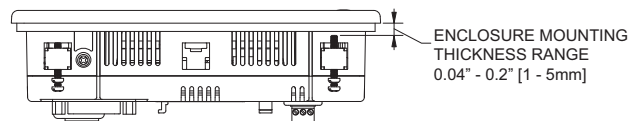


**NOTE: Don't forget the optional keypad bezels shown in the Accessories section.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 6" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more 6" Micro panels will not fit in cutouts for DV-1000, EZText, Optimate panels or C-more 6" panels.**



# C-more 6" Micro STN Touch Panel

Model EA1-S6MLW **C-more** 6" Micro touch panel has a 5.7-inch STN LCD monochrome 320 x 240 dot display and five selectable LED-driven backlight colors including White, Pink1, Pink2, Pink3 and Red. It features five user-defined function keys, each key with a user-defined red LED indicator. The panel can display up to 40 lines by 80 characters of static text and up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics in landscape orientation. Portrait orientation can display 53 lines by 60 characters of static text and 40 lines by 40 characters of dynamic text. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). The **C-more** 6" Micro STN panels are powered from a Class 2, 12-24 VDC power supply or can operate in low-power mode\* when powered from the serial communications port of select AutomationDirect PLCs.

**Part No. EA1-S6MLW**  
Shown in Landscape (Horizontal) mode



## Features

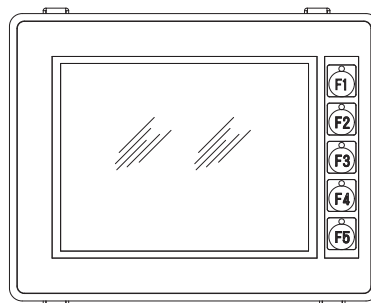
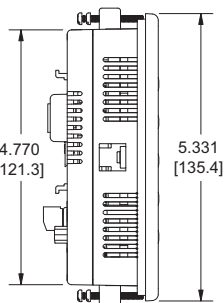
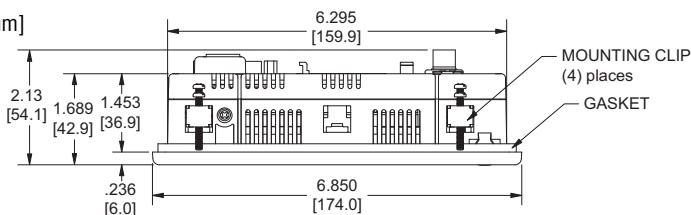
- Touch screen display
- Free downloadable programming software
- 320 x 20 Dot display with up to 40 lines by 80 characters of text and graphics in landscape mode
- Up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 5-Color LED backlight for longer lifetime; Green, Red, Amber, Yellow and Lime
- 2 optional keypad bezels, 20-button landscape and 21-button portrait
- Optional replaceable clear screen overlay
- 1,792 KB memory
- Built-in RJ12 serial communications port
- Built-in 15-pin serial communications port
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and red LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



**\*NOTE: When EA1-S6ML or EA1-S6MLW is powered through Port1 from a connected PLC or PC, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 6" panel's power connection. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application.**

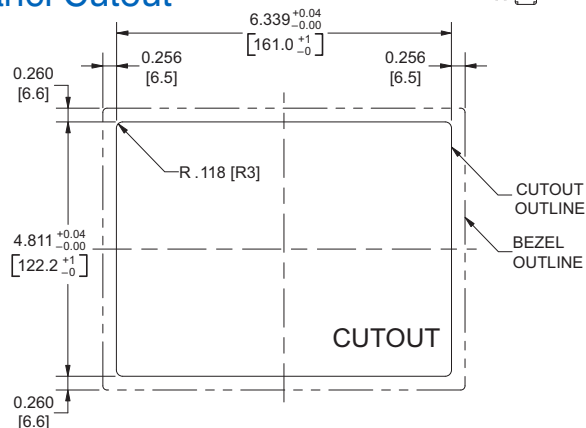
## Dimensions

Units: inches [mm]

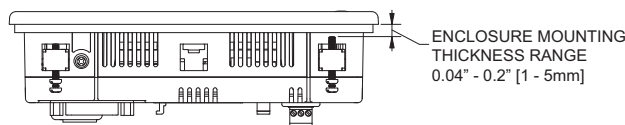


**NOTE: Don't forget the optional keypad bezels shown in the Accessories section.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 6" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more 6" Micro panels will not fit in cutouts for DV-1000, EZText, Optimate panels or C-more 6" panels.**

# C-more 6" Micro TFT Touch Panel

Model EA1-T6CL **C-more** 6" Micro touch panel has a 5.7-inch TFT LCD 320 x 240 dot display and a palette of 32K colors for customizing objects, screen backgrounds and displaying bitmap graphics. It features five user-defined function keys, each key with a user-defined red LED indicator. The panel can display up to 40 lines by 80 characters of static text and up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics in landscape orientation. Portrait orientation can display 53 lines by 60 characters of static text and 40 lines by 40 characters of dynamic text. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). The **C-more** 6" Micro TFT panels are powered from a Class 2, 12-24 VDC power supply\*.

Part No. EA1-T6CL

Shown in Landscape (Horizontal) mode



## Features

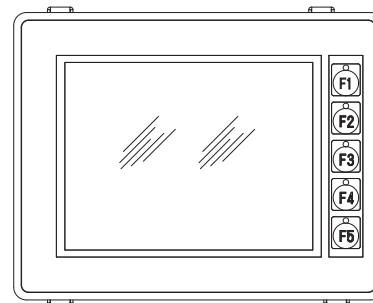
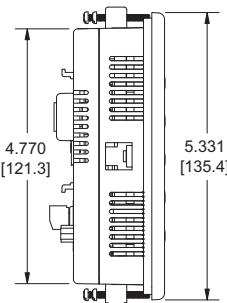
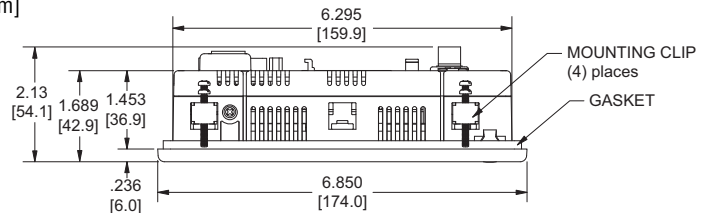
- Touch screen display
- Free downloadable programming software
- 320 x 20 Dot display with up to 40 lines by 80 characters of text and graphics in landscape mode
- Up to 40 lines by 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- 5 programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 32K colors
- 2 optional keypad bezels, 20-button landscape and 21-button portrait
- Optional replaceable clear screen overlay
- 3,276 KB memory
- Built-in USB type B programming port
- Built-in 15-pin serial communications port
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and red LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



**\*NOTE: The EA1-T6CL can be powered through Port1 when connected to a PC for programming, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 6" panel's power connection. An external Class 2, 12-24 VDC power source must be used when the panel is installed in its application.**

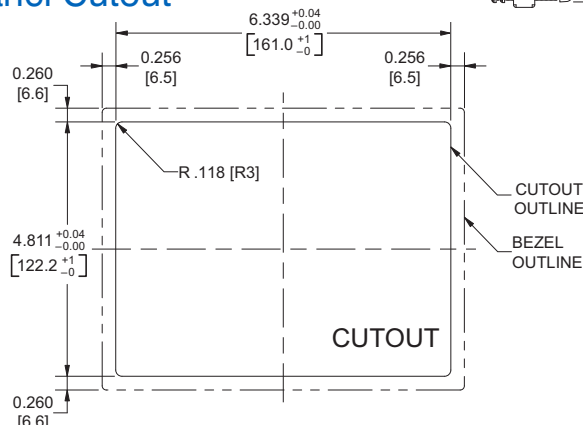
## Dimensions

Units: inches [mm]

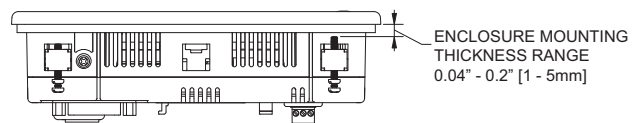


**NOTE: Don't forget the optional keypad bezels shown in the Accessories section.**

## Panel Cutout



## Panel Thickness



**NOTE: The C-more 6" Micro cutout dimensions are not equivalent to previous AutomationDirect text panels. The C-more 6" Micro panels will not fit in cutouts for DV-1000, EZText, Optimate panels or C-more 6" panels.**



# C-more 6" Micro Specifications

| Specifications  |   |           |   |
|---|---|-----------|---|
|   | EA1-S6ML  | EA1-S6MLW | EA1-T6CL  |
| <b>Description</b>  | 320 x 240 dots LCD display (Landscape Mode),<br>five user defined keypad function buttons, and five user defined LED's  |           |   |
| <b>Display</b>  |   |           |   |
| • <b>Type</b>   | 5.7" STN monochrome LCD, graphical characters   |           | 5.7" TFT Color LCD, graphical characters  |
| • <b>Resolution</b>   | 320 (W) x 240 (H) dots (Landscape Mode)<br>240 (W) x 320 (H) dots (Portrait Mode)   |           |   |
| • <b>Color</b>  | 2 colors (normal / inverse)   |           | 32768 colors  |
| • <b>Viewing Area Size</b>  | 4.614" (W) x 3.480" (H) [117.2 mm x 88.4 mm]  |           | 4.574" (W) x 3.483" (H) [116.2 mm x 87.4 mm]  |
| • <b>Active Area Size</b>   | 4.535" (W) x 3.400" (H) [115.2 mm x 86.4 mm]  |           |   |
| • <b>Contrast</b>   | Adjusted from the panel's built-in configuration setup menu   |           |   |
| • <b>Viewing Angle</b>  | 3, 9 o'clock axis → 45 degrees<br>6 o'clock axis → 40 degrees<br>12 o'clock axis → 20 degrees   |           | 3, 9 o'clock axis → 50 degrees<br>6 o'clock axis → 50 degrees<br>12 o'clock axis → 45 degrees |
| <b>Backlight</b>  |   |           |   |
| • <b>Type</b>   | LED   |           |   |
| • <b>Color</b>  | 5 user defined colors: <b>EA1-S6ML</b> - Red, Green, Amber, Lime, and Yellow<br><b>EA1-S6MLW</b> - White, Pink1, Pink2, Pink3 and Red   |           | White   |
| • <b>User Replaceable</b>   | No  |           |   |
| <b>Touch Screen</b>   |   |           |   |
| • <b>Type</b>   | Analog touch panel  |           |   |
| • <b>Operation</b>  | 82 gram force [0.8 N] maximum   |           |   |
| • <b>Life</b>   | Minimum of 1,000,000 cycles   |           |   |
| <b>Features</b>   |   |           |   |
| • <b>User Memory</b>  | 1792 kBytes   |           | 3276 kBytes   |
| • <b>Number of Screens</b>  | Up to 999 – limited by project memory usage   |           |   |
| • <b>Beep (Internal)</b>  | Yes   |           |   |
| • <b>Keypad Function Buttons</b>                                    | Five user defined function key buttons with the ability to customize label with an overlay.<br>Minimum of 500,000 cycles  |           |   |
| • <b>Keypad Function Button LEDs</b>                                | Each function key button includes a red LED that can be user programmed.  |           |   |
| • <b>Programming Port</b>   | RJ12  |           | USB Type B  |
| • <b>Serial Communications</b>                                      | Built-in RJ12 serial communications port (RS-232)<br>and 15-pin D-sub serial communications port (RS-232, RS-485 / 422).  |           | 15-pin D-sub serial communications port<br>(RS-232, RS-485 / 422)                             |
| • <b>Expansion Connection</b>                                       | Yes – used with optional Keypad Bezels, EA-MG6-BZ2 & EA-MG6-BZ2P  |           |   |
| <b>Screen Objects</b>   |   |           |   |
| • <b>Functional Devices</b>   | Push Button, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Screen Change Push Button, Screen Selector, Adjust Contrast, Function, Key Configuration Object, Real Time Graphics Line Graph, Analog Meter. |           |   |
| • <b>Static Shapes</b>  | Lines, Rectangles, Circles and Frames   |           |   |
| • <b>Displayable Fonts</b>  | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts   |           |   |
| <b>Physical</b>   |   |           |   |
| • <b>Dimensions</b>   | 6.850" (W) x 5.331" (H) x 2.130" (D) [174.0 mm x 135.4 mm x 54.1 mm] (Landscape Mode)<br>5.331" (W) x 6.850" (H) x 2.130" (D) [135.4 mm x 174.0 mm x 54.1 mm] (Portrait Mode)   |           |   |
| • <b>Enclosure Mounting Thickness Range</b>                         | 0.04" – 0.2" [1 – 5 mm]   |           |   |
| • <b>Mounting Clip Screw Torque Range</b>                           | 21 – 28 oz-in [0.15 – 0.2 Nm]   |           |   |
| • <b>Depth from bezel rear with options Module</b>                  | 1.894" [47.1 mm]  |           |   |
| • <b>Weight</b>   | 30.69 oz (870g)   |           |   |
| <b>C-more 6" Micro panel specifications continued on next page.</b> |   |           |   |

Company  
InformationControl Systems  
Overview

CLICK PLC

Do-More  
PLCs OverviewDo-More H2  
PLCDo-More T1H  
PLCDirectLOGIC  
PLCs OverviewDirectLOGIC  
DL05/06DirectLOGIC  
DL105DirectLOGIC  
DL205DirectLOGIC  
DL305DirectLOGIC  
DL405Productivity  
Controller  
OverviewProductivity  
3000Universal  
Field I/O

Software

C-More  
HMIC-More Micro  
HMIViewMarq  
Industrial  
Marquees

Other HMI

Communications

Appendix  
Book 1Terms and  
Conditions



# C-more 6" Micro Specifications

| Specifications  |  |                  |                 |
|---|--|------------------|-----------------|
|   | <i>EA1-S6ML</i>  | <i>EA1-S6MLW</i> | <i>EA1-T6CL</i> |
| <b>Physical</b>   |  |                  |                 |
| • <b>Dimensions</b>   | 6.850" (W) x 5.331" (H) x 2.130" (D) [174.0 mm x 135.4 mm x 54.1 mm] (Landscape Mode)<br>5.331" (W) x 6.850" (H) x 2.130" (D) [135.4 mm x 174.0 mm x 54.1 mm] (Portrait Mode)    |                  |                 |
| • <b>Enclosure Mounting Thickness Range</b>                         | 0.04" – 0.2" [1 – 5 mm]  |                  |                 |
| • <b>Mounting Clip Screw Torque Range</b>                           | 21 – 28 oz-in [0.15 – 0.2 Nm]  |                  |                 |
| • <b>Depth from bezel rear with options Module</b>                  | 1.894" [47.1 mm]   |                  |                 |
| • <b>Weight</b>   | 30.69 oz. (870 g)  |                  |                 |
| <b>Environmental</b>  |  |                  |                 |
| • <b>Operating Temperature</b>                                      | 0 to 50 °C (32 to 122 °F) Maximum surrounding air temperature rating: 50 °C  |                  |                 |
| • <b>Storage Temperature</b>  | –20 to +60 °C (–4 to +140 °F)  |                  |                 |
| • <b>Humidity</b>   | 5–95% RH (non-condensing)  |                  |                 |
| • <b>Environmental Air</b>  | For use in Pollution Degree 2 environment  |                  |                 |
| • <b>Vibration</b>  | IEC60068-2-6 (Test Fc), 5-9 Hz: 3.5 mm amplitude, 9-150 Hz: 1.0G, sweeping, at a rate of 1 octave/min. (±10%), 10 sweep cycles per axis on each of 3 mutually perpendicular axes |                  |                 |
| • <b>Shock</b>  | IEC60068-2-27 (Test Ea), 15 G peak, 11 ms duration, three shocks in each direction per axis, on 3 mutually perpendicular axes (total of 18 shocks)                               |                  |                 |
| • <b>Noise Immunity</b>   | NEMA ICS3-304<br>RFI, (145 MHz, 440 MHz 10 W @ 10 cm)<br>Impulse 1000 V @ 1 µs pulse   |                  |                 |
| • <b>Enclosure</b>  | For use on a flat surface of Type 1, 4X enclosure (Indoor use only)  |                  |                 |
| • <b>Agency Approvals</b>   | CE (EN61131-2), UL508, CUL Canadian C22.2 No. 142-M95, UL File E157382, CSA 234884   |                  |                 |
| <b>C-more 6" Micro panel specifications continued on next page.</b> |  |                  |                 |



**NOTE:** The environmental specifications for the panels shown above are also applicable for the **C-more 6" Micro accessories** shown later in this section of the catalog.

# C-more 6" Micro Specifications



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Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

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Software

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C-More Micro HMI

ViewMarq Industrial Marquees

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| Specifications                                   |  |  |
|--|--|--|
| EA1-S6ML and EA1-S6MLW                           |  |  |
| <b>Electrical</b>                                |  |  |
|  | <b>Low Power Mode*</b>   | <b>High Power Mode</b>   |
| • <b>Input Voltage Range</b>                     | 5.0 VDC (4.75 – 5.25 VDC)  | 12/24 VDC (10.2 – 26.4 VDC)                                      |
| • <b>Input Power</b>                             | Supplied through the panel's RJ12 serial communications port connection when used with most AutomationDirect PLCs having a RJ12 communication port or from a PC USB. | Supplied from an external Class 2, 12-24 VDC power source        |
| • <b>Power Consumption</b>                       | 1.05 W (220 mA@4.75 VDC)   | 6.5 W (640 mA @ 10.2 VDC)  |
| • <b>Recommended Fuse</b>                        | No fuse required when directly connected to a PLC or PC with recommended cable.  | Type AGC fast acting glass fuse, 750 mA, 250 VAC, ADC p/n AGC-75 |
| • <b>Maximum Inrush Current</b>                  | 1 A for 500 µs   | 10 A for 500 µs  |
| • <b>Acceptable External Power Drop Duration</b> | Maximum 1 ms   |  |



**\*NOTE: When the 6" panel is powered through Port1 from a connected PLC or PC, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 6" panel's power connection. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application.**

| Specifications                                   |   |  |
|--|---|--|
| EA1-T6CL   |   |  |
| <b>Electrical</b>                                |   |  |
|  | <b>USB Bus Power (Programming only)*</b>  | <b>High Power Mode</b>   |
| • <b>Input Voltage Range</b>                     | 5.0 VDC (4.75 – 5.25 VDC)   | 12/24 VDC (10.2 – 26.4 VDC)                                      |
| • <b>Input Power</b>                             | Supplied from a PC USB.   | Supplied from an external Class 2, 12-24 VDC power source        |
| • <b>Power Consumption</b>                       | 2 W (420 mA @ 4.75 VDC)   | 6.5 W (640 mA @ 10.2 VDC)  |
| • <b>Recommended Fuse</b>                        | No fuse required when directly connected to a PLC or PC with recommended cable. | Type AGC fast acting glass fuse, 750 mA, 250 VAC, ADC p/n AGC-75 |
| • <b>Maximum Inrush Current</b>                  | 4.5 A for 800 µs  | 13 A for 800 µs  |
| • <b>Acceptable External Power Drop Duration</b> | Maximum 1 ms  |  |



**\*NOTE: The EA1-T6CL can be powered through Port1 when connected to a PC for programming, the screen brightness is diminished because the panel is running in Low-Power Mode. For full brightness, connect an external Class 2, 12-24 VDC power source to the 6" panel's power connection. An external Class 2, 12-24 VDC power source must be used when the panel is installed in its application.**

| PLC Drivers                          |  |
|--------------------------------------|--|
| Serial - port1 or port2              | Serial - port2 only                              |
| AutomationDirect Productivity Series | Allen-Bradley DF1 Half Duplex                    |
| AutomationDirect Do-more             | Allen-Bradley DF1 Full Duplex                    |
| AutomationDirect CLICK               | Allen-Bradley PLC5 DF1                           |
| AutomationDirect K-sequence          | Allen-Bradley DH485                              |
| AutomationDirect DirectNET           | GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro) |
| AutomationDirect Modbus              | Mitsubishi FX                                    |
| Modicon Modbus RTU                   | Mitsubishi Q & QnA                               |
| Entivity Modbus RTU                  | Omron Host Link (C200 Adapter, C500)             |
|                                      | Omron FINS Serial (CJ1, CS1)                     |
|                                      | Siemens PPI (S7-200 CPU)                         |
|                                      | AutomationDirect SOLO Temperature Controller     |
|                                      | AutomationDirect GS Drives                       |



**\*NOTE: EA1-T6CL cannot be powered by a PLC and cannot communicate with a PLC through Port1**



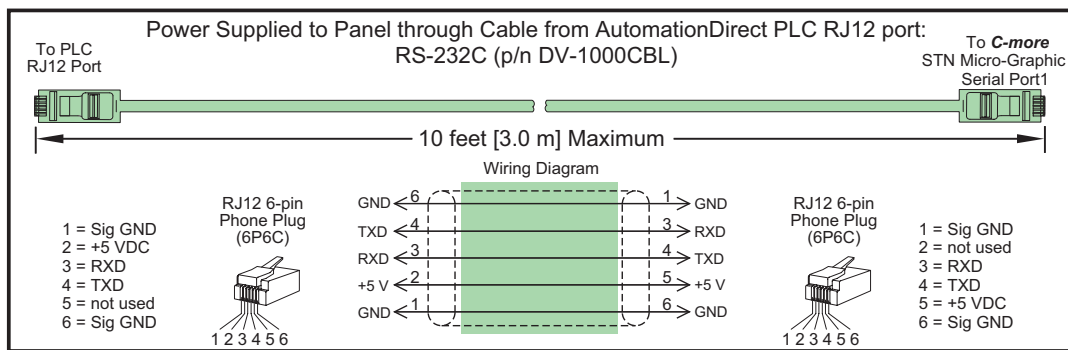
**For a list of supported protocols and cabling options refer to the 4" & 6" C-more Micro Protocols and cabling chart starting on page CK-61.**

# C-more 6" Micro Power Connection Wiring

## Providing power to the touch panel

- 1.) During operation, the panel functions in High-Power Mode when powered by a minimum 1 Amp 12 - 24 VDC power source. Recommended power supplies are AutomationDirect part number PSC-24-015 or PSC-24-030.
- 2.) C-more Micro STN panels EA1-S6ML and EA1-S6MLW are powered during programming from the PC through the USB to RS-232 Programming Cable Assembly, EA-MG-PGM-CBL. C-more Micro TFT panel EA1-T6CL is powered during programming through a USB A-to-B cable such as USB-CBL-AB6. The panel will operate in Low-power mode when powered by the PC and result in a dim screen.\*
- 3.) Optionally, the C-more Micro STN panels EA1-S6ML and EA1-S6MLW can function in Low-Power Mode powered from most AutomationDirect PLC's RJ12 serial communications port. Use a DV-1000CBL communications cable, or a DV-1000CBL communications cable with a FA-15HD 15-pin HD DSub/RJ12 Adapter connected to most AutomationDirect PLC's 15-pin HD communications port (DL06, D2-250-1 & D2-260) for Low-Power operation. See Chapter 6: PLC Communications in the Hardware User's Manual (P/N: EA1-MG6-USER-M) for additional details. The panel will operate in low-power mode when powered by the PLC. The C-more Micro TFT panel EA1-T6CL cannot be powered from a PLC.

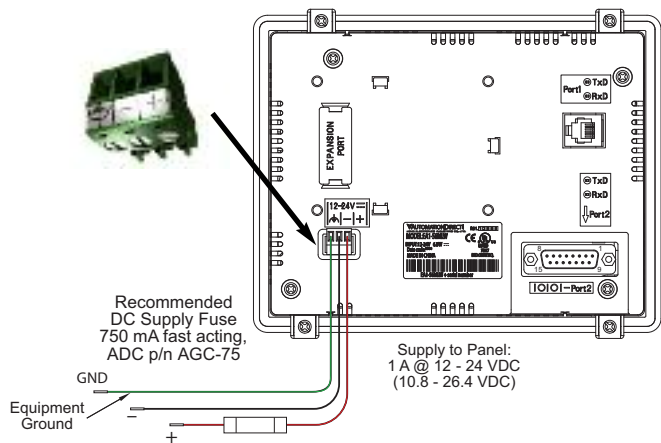
## EA1-S6ML or EA1-S6MLW powered from an AutomationDirect PLC via communications cable



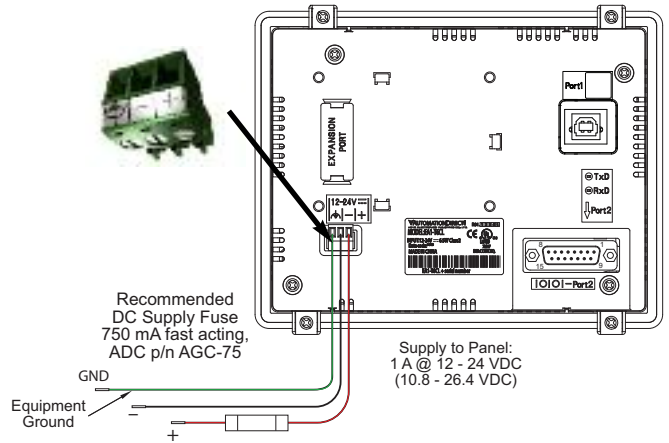
**\*NOTE: When the panel is powered through Port1, the screen brightness is diminished. For full brightness, connect an external Class 2, 12-24 VDC power source to the panel's power connection. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application.**

## 6" Panel powered from a DC power source – wiring diagram

### EA1-S6ML & EA1-S6MLW



### EA1-T6CL



**NOTE: Recommended DC power supply to power the C-more Micro Panel, AutomationDirect Part No. PSC-24-015 or PSC-24-030.**



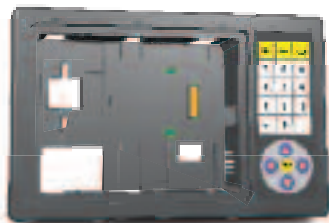
# C-more 6" Micro Panel Accessories

## 20-Button Keypad Bezel, Landscape Orientation

The 20-button keypad bezel is designed to be used with all **C-more 6"** Micro panels. The keypad includes four directional arrow cursor buttons, a full numeric keypad, and one each of an ESCAPE, MENU, CLEAR and ENTER button. The keypad is intended to be used with the numeric entry object (Style 3) to allow changing of a value, and can also be used to

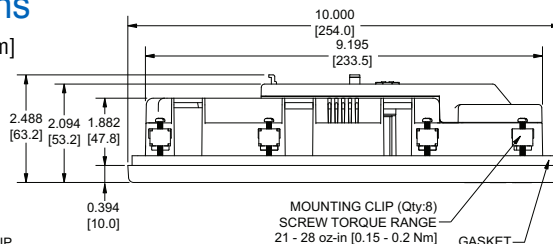
navigate and select screen objects. The numeric buttons can be used to enter a new value, along with the ENTER and CLEAR buttons. The **6"** panels mount directly into the bezel; no panel configuration is required.

### Part No. EA-MG6-BZ2

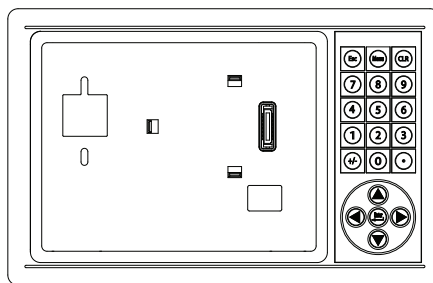
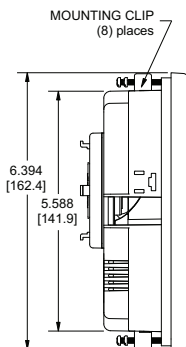


### Dimensions

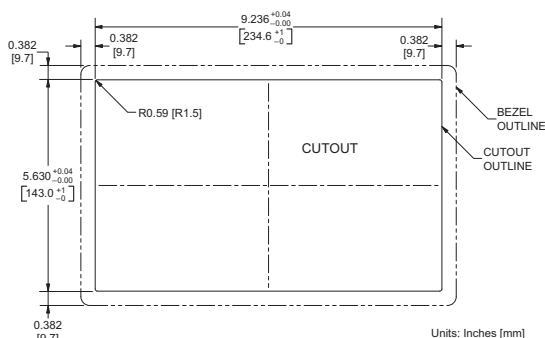
Units: inches [mm]



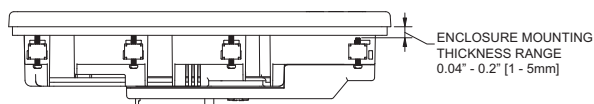
**Four directional cursor buttons, numeric buttons and ESC, MENU, CLEAR and ENTER buttons.**



### Panel Cutout



### Panel Thickness



### 20-Button Keypad Bezel Specifications

| Part Number                     | EA-MG6-BZ2   |
|---------------------------------|--|
| <b>General</b>                  |  |
| • <b>Micro Panels Supported</b> | EA-S6ML, EA-S6MLW, EA1-T6CL  |
| • <b>Connection</b>             | Connects with expansion connector on the rear of the <b>C-more 6"</b> Micro panel.   |
| • <b>Power Consumption</b>      | None   |
| • <b>Keypad Button Life</b>     | Minimum of 500,000 cycles  |
| • <b>Enclosure Mounting</b>     | (8) mounting clips, EA-MG-BZ2-BRK, included.   |
|                                 | Note: The <b>C-more 6"</b> Micro panel is installed into the keypad bezel using the (4) mounting clips, EA-MG-BZ2-BRK, that are supplied with the panel. |
| <b>Physical</b>                 |  |
| • <b>Dimensions</b>             | 10.000" (W) x 6.394" (H) x 2.488" (D)<br>[254.0 mm x 162.4 mm x 63.2 mm]   |
| • <b>Weight</b>                 | 26.1 oz. [740 g]   |
| <b>Environmental:</b>           | See Micro panel specifications at the beginning of this catalog section  |

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Do-More T1H PLC

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# C-more 6" Micro Panel Accessories

## 21-Button Keypad Bezel, Portrait Orientation

The 21-button keypad bezel is designed to be used with all **C-more 6"** Micro panels. The keypad includes four directional arrow cursor buttons, a full numeric keypad, and one each of an ESCAPE, MENU, CLEAR and two ENTER buttons. The keypad is intended to be used with the numeric entry object (Style 3) to allow changing of a value, and can also be used to

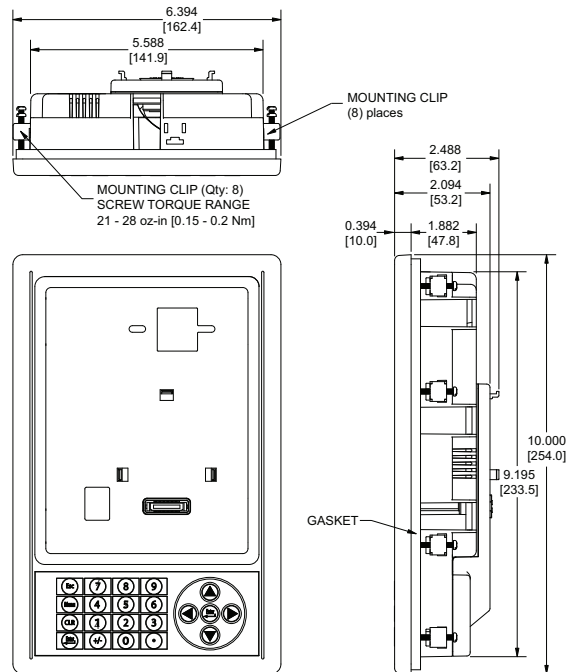
navigate & select screen objects. The numeric buttons can be used to enter a new value, along with the ENTER and CLEAR buttons. The 6" panels mount directly into the bezel; no panel configuration is required.

**Part No. EA-MG6-BZ2P**

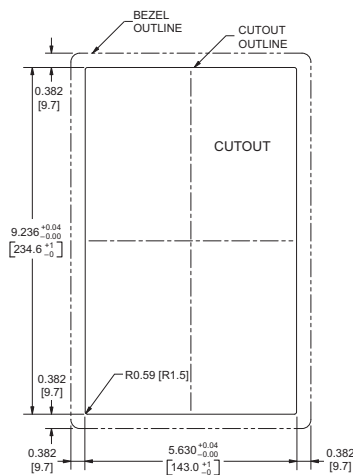


### Dimensions

Units: inches [mm]

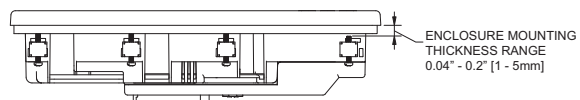


### Panel Cutout



**Four directional cursor buttons, numeric buttons, and ESC, MENU, CLEAR and ENTER buttons.**

### Panel Thickness



| 21-Button Keypad Bezel Specifications |  |
|---------------------------------------|--|
| <b>Part Number</b>                    | <b>EA-MG6-BZ2P</b>   |
| <b>General</b>                        |  |
| • <b>Micro Panels Supported</b>       | EA-S6ML, EA-S6MLW, EA1-T6CL  |
| • <b>Connection</b>                   | Connects with expansion connector on the rear of the <b>C-more 6"</b> Micro panel.   |
| • <b>Power Consumption</b>            | None   |
| • <b>Keypad Button Life</b>           | Minimum of 500,000 cycles  |
| • <b>Enclosure Mounting</b>           | (8) mounting clips, EA-MG-BZ2-BRK, included.   |
|                                       | Note: The <b>C-more 6"</b> Micro panel is installed into the keypad bezel using the (4) mounting clips, EA-MG-BZ2-BRK, that are supplied with the panel. |
| <b>Physical</b>                       |  |
| • <b>Dimensions</b>                   | 6.394" (W) x 10.000" (H) x 2.488" (D)<br>[162.4 mm x 254.0 mm x 63.2 mm]   |
| • <b>Weight</b>                       | 26.1 oz. [740 g]   |
| <b>Environmental</b>                  | See Micro panel specifications at the beginning of this catalog section  |



# C-more 6" Micro Panel Accessories

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Do-More T1H PLC

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## D-SUB 15-pin 90-degree Communication Port Adapter

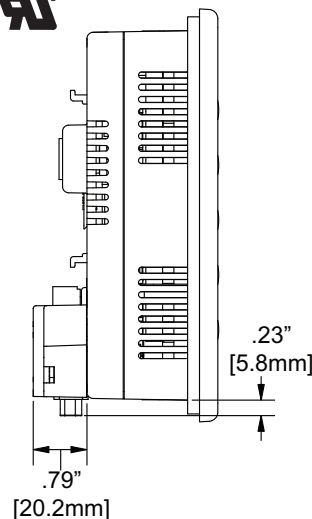
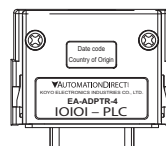
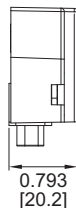
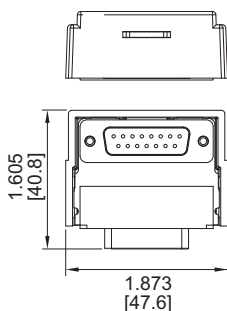
The EA-ADPTR-4 adapter plugs into the 15-pin serial port on the rear of a 6" panel to allow a controller communication cable to be plugged in at a 90 degree angle to reduce panel depth requirements. 15-pin straight through pin-out. UL Recognized.

**Part No.**  
**EA-ADPTR-4**



### Dimensions

Units: inches [mm]



## D-SUB 15-pin to Terminal Block Adapter

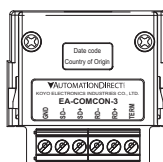
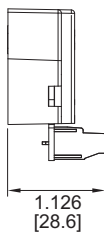
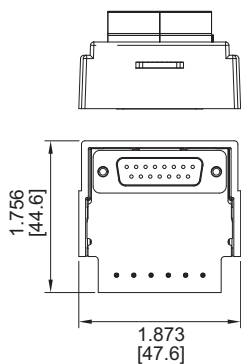
The EA-COMCON-3 adapter plugs into the 15-pin serial port on the rear of a 6" panel to allow wire terminal connections for an RS-422/RS-485/DH-485 PLC communication cable. UL Recognized.

**Part No.**  
**EA-COMCON-3**

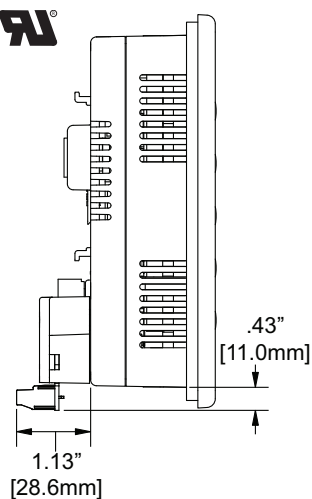
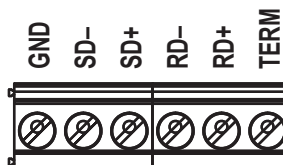


### Dimensions

Units: inches [mm]



**Terminals**



# C-more 6" Micro Panel Accessories

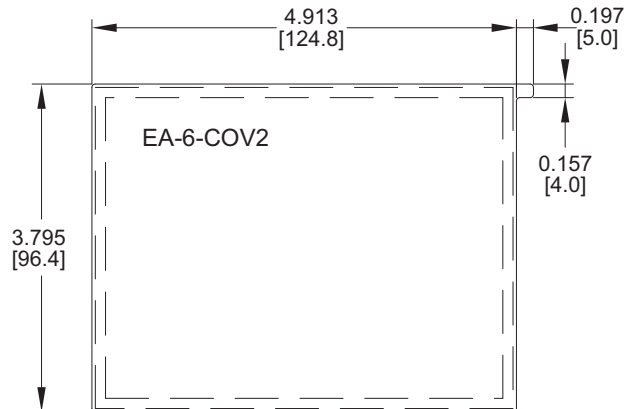
## Clear Screen Overlay

Optional clear screen overlay used to protect C-more 6" Micro displays from minor scratches and wear. Package contains 3 clear screen overlays.

Part No. EA-6-COV2

### Dimensions

Units: inches [mm]



## Clear Screen Overlay Installation

Step 1



Remove the overlay from the package

Step 2



Remove the paper backing from the overlay

Step 3



Align the overlay with the screen and press the adhesive firmly into place

Step 4



Remove the protective film\*



\*Note: The overlay cover ships with a thin protective film on the face that should be carefully removed after installation.



# C-more 6" Micro Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost **C-more 6"** Micro panel components.

## Replacement parts at a glance:

| Part Number            | Description   | Price |
|------------------------|---|-------|
| <b>EA-MG-BZ2-BRK</b>   | Replacement mounting clip for 4" and 6" <b>C-more</b> Micro panels and 6" keypad bezels. Also used to mount the <b>C-more</b> 3" Micro bezel EA-MG-BZ2. (pk of 8) | \$    |
| <b>EA-MG-DC-CON</b>    | Replacement adapter DC power connector (pk of 5)  | \$    |
| <b>EA-MG6-S6ML-GSK</b> | Replacement mounting gasket for <b>C-more</b> 6" Micro panels   | \$    |
| <b>EA-MG6-BZ2-GSK</b>  | Replacement mounting gasket for <b>C-more</b> 6" Micro keypad bezels EA-MG6-BZ2 and EA-MG6-BZ2P   | \$    |
| <b>EA-MG6-S6ML-FKL</b> | Replacement function key label insert for <b>C-more</b> 6" Micro panels (pk of 5; 3 blank, 1 F1-F5 for landscape, 1 F1-F5 for portrait)                           | \$    |

**Panel Mounting Clips**  
Part No. EA-MG-BZ2-BRK



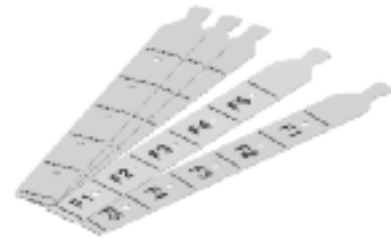
(pk of 8)

**DC Power Connector**  
Part No. EA-MG-DC-CON



(pk of 5)

**Function Keys Label Inserts**  
Part No. EA-MG6-S6ML-FKL



(pk of 5; 3 blank, 1 F1-F5 for landscape, 1 F1-F5 for portrait)

**Panel Gasket**  
Part No. EA-MG6-S6ML-GSK



**Keypad Bezel Gasket**  
Part No. EA-MG6-BZ2-GSK



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# C-more 4" & 6" Micro PLC Connections

## Cabling requirements

When using the built in RJ12 serial port (Port1) on models EA1-S6ML or EA1-S6MLW to connect with the CLICK, ProductivitySeries, DL05, DL06, DL105, DL205, D3-350 and DL405 CPUs, your cabling choices are fairly simple.

- DV-1000CBL — connects to CLICK, P3-550, DL05, DL06, DL105, DL205, D3-350 and D4-450 phone jack.
- D4-1000CBL — connects to all DL405 CPU 15-pin ports.

A maximum cable length of **10 feet** between the EA1-S6ML or EA1-S6MLW and the PLC is recommended when powering the panel in Low-Power Mode from the PLC. The EA1-T4CL and EA1-T6CL cannot be powered from a PLC.

The **C-more 4"** and **6"** Micro panels can communicate through its built-in 15-pin serial port (Port2) via RS-232, RS-422 and RS-485 using these cables.

- EA-2CBL — connects to CLICK, P3-550, DL05, DL105, DL205, D3-350 and D4-450 phone jack.
- EA-2CBL-1 — connects to D2-250, D250-1, D2-260, DL06 VGA connector.

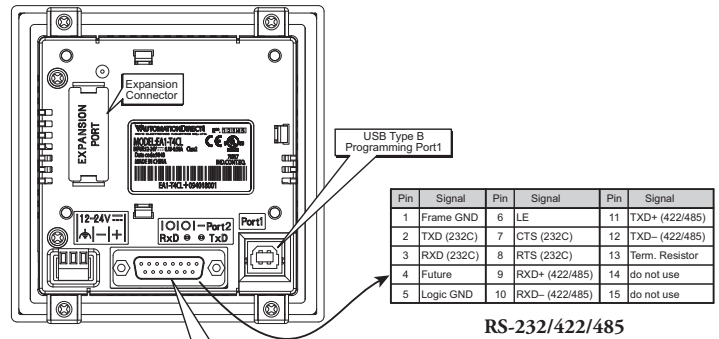
The EA1-T4CL and EA1-T6CL can only communicate to a controller through the 15-pin serial Port2; the USB Port1 on these TFT models is for programming only.

## Drivers for your Controller

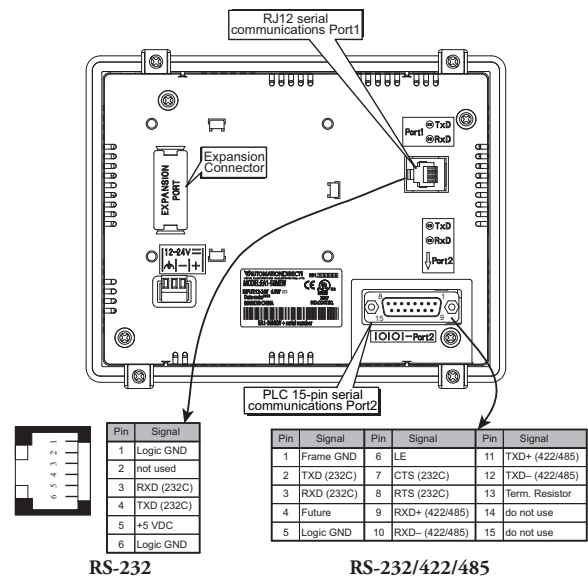
- AutomationDirect Productivity Series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **Direct**LOGIC K-sequence, **Direct**LOGIC DirectNET, **Direct**LOGIC Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500) Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entivity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

## Communication Ports

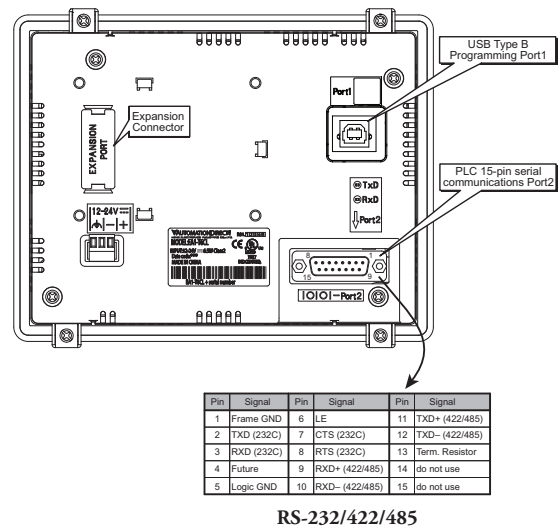
### EA1-T4CL



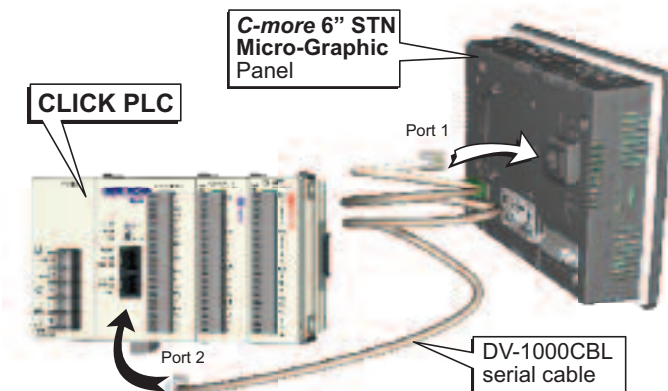
### EA1-S6ML & EA1-S6MLW



### EA1-T6CL



## C-more 6" STN Micro Port 1 to CLICK PLC Port 2





# C-more 4" & 6" Micro Communication Protocols & Cabling Chart

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

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Terms and Conditions

| Controller Compatibility & Connection Chart |              |                              |   |                           |   |                               |                   |
|---|--------------|------------------------------|---|---------------------------|---|-------------------------------|-------------------|
| PLC   |              |                              | C-more 4" and 6" Micro Panel  |                           |   |                               |                   |
| Family                                      | CPU          | PLC Port & Type              | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                           |   |                               |                   |
|   |              |                              | **PLC Port Powered or External DC Power Supply                                      |                           | External DC Power Supply                          |                               |                   |
|   |              |                              | Using panel's RJ12 Port1  |                           | Using panel's Port2 DB 15-pin - female            |                               |                   |
|   |              |                              | Protocol(s) Supported   | Components & Network Type | Protocol(s) Supported                             | Components & Network Type     |                   |
| CLICK                                       | all versions | Port 1 RJ12 - 6 pin          | AutomationDirect Modbus (CLICK)   | DV-1000CBL** RS-232       | AutomationDirect Modbus (CLICK)                   | EA-2CBL RS-232                |                   |
|   |              | Port 2 RJ12 - 6 pin          |   |                           |   |                               |                   |
|   | Analog CPU's | Port3 Term block 3-pin       |   | N/A                       |   |                               | * See Note RS-485 |
| Productivity Series                         | all versions | RS-232 RJ12 - 6 pin          | AutomationDirect Productivity3000 Serial (P3-550)                                   | DV-1000CBL** RS-232       | AutomationDirect Productivity3000 Serial (P3-550) | EA-2CBL RS-232                |                   |
|   |              | RS-485 Port Term block 3-pin |   | N/A                       |   | * See Note RS-485             |                   |
| Do-more                                     | all versions | Port 2 RJ12 - 6 pin          | AutomationDirect Do-more Serial   | DV-1000CBL** RS-232       | AutomationDirect Do-more Serial                   | EA-2CBL RS-232                |                   |
| DirectLOGIC DL05                            | all versions | Port 1 RJ12 - 6 pin          | K-sequence, Direct NET, Modbus RTU  | DV-1000CBL** RS-232       | K-sequence, Direct NET, Modbus RTU                | EA-2CBL RS-232                |                   |
|   |              | Port 2 RJ12 - 6 pin          |   |                           |   |                               |                   |
|   | D0-DCM       | Port 1 RJ12 - 6 pin          | K-sequence, Direct NET, Modbus RTU  | DV-1000CBL** RS-232       | K-sequence, Direct NET, Modbus RTU                | EA-2CBL-1 RS-232              |                   |
|   |              | Port 2 DB15HD (female)       |   |                           |   | DV-1000CBL** + FA-15HD RS-232 | * See Note RS-422 |
| DirectLOGIC DL06                            | all versions | Port 1 RJ12 - 6 pin          | K-sequence, Direct NET, Modbus RTU  | DV-1000CBL** RS-232       | K-sequence, Direct NET, Modbus RTU                | EA-2CBL RS-232                |                   |
|   |              | Port 2 DB15HD (female)       |   |                           |   | DV-1000CBL** + FA-15HD RS-232 | EA-2CBL-1 RS-232  |
|   |              |                              |   |                           |   |                               | Modbus RTU        |
|   | D0-DCM       | Port 1 RJ12 - 6 pin          | K-sequence, Direct NET, Modbus RTU  | DV-1000CBL** RS-232       | K-sequence, Direct NET, Modbus RTU                | EA-2CBL RS-232                |                   |
|   |              | Port 2 DB15HD (female)       |   |                           |   | DV-1000CBL** + FA-15HD RS-232 | EA-2CBL-1 RS-232  |
|   |              |                              |   |                           |   |                               | Modbus RTU        |
| DirectLOGIC DL105                           | all versions | Port 1 RJ12 - 6 pin          | K-sequence  | DV-1000CBL** RS-232       | K-sequence  | EA-2CBL RS-232                |                   |

\* Note: See the C-more Micro Hardware User Manuals (P/N: EA1-MG6-USER-M or EA1-TCL-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

\*\* Note: For EA1-S6ML and EA1-S6MLW, the PLC can provide 5 VDC through this cable. No external 12-24 VDC source is required, however, screen brightness is diminished and the alarm beep will not function. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application. EA1-T4CL and EA1-T6CL require an external power supply. PLC Compatibility & Connection Chart continued on next page.

# C-more 4" & 6" Micro Communication Protocols & Cabling Chart (cont'd)

| Controller Compatibility & Connection Chart |                   |                           |   |                           |  |                                       |
|---|-------------------|---------------------------|---|---------------------------|--|---------------------------------------|
| PLC   |                   |                           | C-more 4" and 6" Micro Panel  |                           |  |                                       |
| Family                                      | CPU               | Port & Type               | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                           |  |                                       |
|   |                   |                           | **PLC Port Powered or External DC Power Supply                                      |                           | External DC Power Supply               |                                       |
|   |                   |                           | Using panel's RJ12 port 1   |                           | Using panel's Port2 DB 15-pin - female |                                       |
|   |                   |                           | Protocol(s) Supported   | Components & Network Type | Protocol(s) Supported                  | Components & Network Type             |
| DirectLOGIC DL205                           | D2-230            | Port 1 RJ12 - 6 pin       | K-sequence  | DV-1000CBL** RS-232       | K-sequence                             | EA-2CBL RS-232                        |
|   | D2-240            | Port 1 RJ12 - 6 pin       | K-sequence  | DV-1000CBL** RS-232       | K-sequence                             | EA-2CBL RS-232                        |
|   |                   | Port 2 RJ12 - 6 pin       | K-sequence, Direct NET,   |                           | K-sequence, Direct NET,                |                                       |
|   | D2-250-1          | D2-250-1                  | K-sequence, Direct NET, Modbus RTU  | DV-1000CBL** RS-232       | K-sequence, Direct NET, Modbus RTU     | EA-2CBL RS-232                        |
|   |                   | Port 2 DB15HD (female)    |   |                           |  | DV-1000CBL** + FA-15HD RS-232         |
|   | D2-260            | Port 1 RJ12 - 6 pin       | K-sequence, Direct NET, Modbus RTU  | DV-1000CBL** RS-232       | K-sequence, Direct NET, Modbus RTU     | EA-2CBL RS-232                        |
|   |                   | Port 2 DB15HD (female)    |   |                           |  | DV-1000CBL + FA-15HD RS-232           |
|   | D2-DCM            | Port 1 DB 25 pin (female) | K-sequence, Direct NET, Modbus RTU  | See Note RS-232           | Direct NET                             | EA-4CBL-2 RS-232<br>* See Note RS-422 |
|   | WINPLC            | Port 1 RJ12 - 6 pin       | Modbus RTU  | DV-1000CBL** RS-232       | Modbus RTU                             | EA-2CBL RS-232                        |
|   | DirectLOGIC DL305 | D3-330 or D3-340          | D3-232-DCU DB 25 pin (female)   | Direct NET                | EA-4CBL-2 RS-232                       | Direct NET                            |
| D3-422-DCU DB 25 pin (female)               |                   |                           | N/A   |                           | Direct NET                             | *See Note RS-422                      |
| D3-340                                      |                   | Port 1 RJ11 - 4 pin       | Direct NET  | OP-3CBL-1** RS-232        | Direct NET                             | EA-3CBL RS-232                        |
|   |                   | Port 2 RJ11 - 4 pin       | Direct NET, Modbus RTU  |                           | Direct NET, Modbus RTU                 |                                       |
| D3-350                                      |                   | Port 1 RJ12 - 6 pin       | K-sequence, Direct NET  | DV-1000CBL** RS-232       | K-sequence, Direct NET                 | EA-2CBL RS-232                        |
|   |                   | Port 2 DB 25 pin (female) | K-sequence, Direct NET, Modbus RTU  | *See Note RS-232          | K-sequence, Direct NET, Modbus RTU     | EA-4CBL-2 RS-232<br>See Note RS-422   |
| D3-DCM D3-350 only                          |                   | Port 1 DB 25 pin (female) | K-sequence, Direct NET, Modbus RTU  | *See Note RS-232          | Direct NET                             | EA-4CBL-2 RS-232                      |
|   | *See Note RS-422  |                           |   |                           |  |                                       |

\* Note: See the C-more Micro Hardware User Manuals (P/N: EA1-MG6-USER-M or EA1-TCL-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

\*\* Note: For EA1-S6ML and EA1-S6MLW, the PLC can provide 5 VDC through this cable. No external 12-24 VDC source is required, however, screen brightness is diminished and the alarm beep will not function. Low-Power Mode should be used during initial programming only. Connect an external 12-24 VDC power source when the panel is installed in its application. EA1-T4CL and EA1-T6CL require an external power supply. PLC Compatibility & Connection Chart continued on next page.



# C-more 4" & 6" Micro Communication Protocols & Cabling Chart (cont'd)

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

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| Controller Compatibility & Connection Chart |           |                           |   |   |  |   |                  |
|---|-----------|---------------------------|---|---|--|---|------------------|
| PLC   |           |                           | C-more 4" and 6" Micro Panel  |   |  |   |                  |
| Family                                      | CPU       | Port & Type               | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |   |  |   |                  |
|   |           |                           | **PLC Port Powered or External DC Power Supply                                      |   | External DC Power Supply               |   |                  |
|   |           |                           | Using panel's RJ12 port 1   |   | Using panel's Port2 DB 15-pin - female |   |                  |
|   |           |                           | Protocol(s) Supported   | Components & Network Type                     | Protocol(s) Supported                  | Components & Network Type                   |                  |
| DirectLOGIC DL405                           | D4-430    | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or DV-1000CBL** & FA-CABKIT RS-232 | K-sequence                             | EA-4CBL-1 RS-232                            |                  |
|   |           | Port 1 DB 25 pin (female) | K-sequence, DirectNET   | DV-1000CBL & FA-CABKIT RS-232                 | K-sequence, DirectNET                  | EA-4CBL-2 RS-232<br>*See Note RS-422        |                  |
|   | D4-440    | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or DV-1000CBL** & FA-CABKIT RS-232 | K-sequence                             | EA-4CBL-1 RS-232                            |                  |
|   |           | Port 1 DB 25 pin (female) | K-sequence, DirectNET   | DV-1000CBL** & FA-CABKIT RS-232               | K-sequence, DirectNET                  | EA-4CBL-2 RS-232<br>*See Note RS-422        |                  |
|   | D4-450    | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or DV-1000CBL** & FA-CABKIT RS-232 | K-sequence                             | EA-4CBL-1 RS-232                            |                  |
|   |           | Port 1 DB 25 pin (female) | K-sequence, DirectNET, Modbus RTU   | DV-1000CBL** & FA-CABKIT RS-232               | K-sequence, DirectNET, Modbus RTU      | EA-4CBL-2 RS-232<br>*See Note RS-422        |                  |
|   |           | Port 3 DB 25 pin (female) | N/A   |   | K-sequence, DirectNET, Modbus RTU      | *See Note RS-422                            |                  |
|   |           | Port 2 RJ12 - 6 pin       | K-sequence, DirectNET   | DV-1000CBL** RS-232                           | K-sequence, DirectNET                  | EA-2CBL RS-232                              |                  |
|   | D4-DCM    | Port 1 DB 25 pin (female) | K-sequence, DirectNET, Modbus RTU   | *See Note RS-232                              | DirectNET                              | EA-4CBL-2 RS-232                            |                  |
|   |           |                           |   |   |  | *See Note RS-422                            |                  |
|   | SOLO      | N/A                       | Data +/- terminals  | N/A   |  | SOLO Temperature Controller                 | *See Note RS-485 |
|   | GS Drives | N/A                       | RS-485 Interface  | N/A   |  | GS Drives Serial GS Drives TCP/IP (GS-EDRV) | *See Note RS-485 |

\* Note: See the C-more Micro Hardware User Manuals (P/N: EA1-MG6-USER-M or EA1-TCL-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

\*\* Note: For EA1-S6ML and EA1-S6MLW, the PLC can provide 5 VDC through this cable. No external 12-24 VDC source is required, however, screen brightness is diminished and the alarm beep will not function. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application. EA1-T4CL and EA1-T6CL require an external power supply. PLC Compatibility & Connection Chart continued on next page.



# C-more 4" & 6" Micro Communication Protocols & Cabling Chart (cont'd)

| Controller Compatibility & Connection Chart |  |                          |   |                                    |  |                           |
|---|--|--------------------------|---|------------------------------------|--|---------------------------|
| PLC   |  |                          | C-more 4" and 6" Micro Panel  |                                    |  |                           |
| Family                                      | CPU  | Port & Type              | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                                    |  |                           |
|   |  |                          | **PLC Port Powered or External DC Power Supply                                      |                                    | External DC Power Supply               |                           |
|   |  |                          | Using panel's RJ12 port 1   |                                    | Using panel's Port2 DB 15-pin - female |                           |
|   |  |                          | Protocol(s) Supported   | Components & Network Type          | Protocol(s) Supported                  | Components & Network Type |
| Allen-Bradley MicroLogix                    | 1000, 1100, 1200, 1400, 1500                               | 8-pin mini-din port      | N/A   | DF1 Full Duplex<br>DF1 Half Duplex | EA-MLOGIX-CBL RS-232                   |                           |
|   |  | RJ45 8-pin phone plug    |   | DH485/AIC/AIC+                     | EA-DH485-CBL RS-232                    |                           |
| Allen-Bradley SLC500                        | 5/03, 5/04, 5/05<br>5/01, 5/02, 5/03                       | 9-pin D-sub port         |   | DF1 Full Duplex<br>DF1 Half Duplex | EA-SLC-232-CBL RS-232                  |                           |
|   |  | RJ45 8-pin phone plug    |   | DH485/AIC/AIC+                     | EA-DH485-CBL RS-232                    |                           |
| Allen-Bradley ControlLogix                  | all  | 9-pin D-sub port         |   | DF1 Full Duplex<br>DF1 Half Duplex | EA-SLC-232-CBL RS-232                  |                           |
| Allen-Bradley CompactLogix                  | all  | 9-pin D-sub port         |   | DF1 Full Duplex<br>DF1 Half Duplex | EA-SLC-232-CBL RS-232                  |                           |
| Allen-Bradley FlexLogix                     | all  | 9-pin D-sub port         |   | DF1 Full Duplex<br>DF1 Half Duplex | EA-SLC-232-CBL RS-232                  |                           |
| Allen-Bradley PLC5                          | all  | 25-pin D-sub port        |   | DF1 Full Duplex                    | EA-PLC5-232-CBL RS-232                 |                           |
|   |  | RJ45 8-pin phone plug    |   | DH485/AIC/AIC+                     | EA-DH485-CBL RS-232                    |                           |
| GE  | 90/30  | 15-pin D-sub port        |   | N/A                                | SNPX                                   | EA-90-30-CBL RS-422       |
|   | Micro 90, VersaMax Micro                                   | RJ45 Port 1              |   |                                    |  | *See Note RS-232          |
|   |  | 15-pin D-sub port Port 2 |   |                                    |  | EA-90-30-CBL RS-422       |
| Mitsubishi                                  | Melsec FX Series   | 25-pin D-sub port        |   | N/A                                | CPU Direct                             | EA-MITSU-CBL RS-422       |
|   |  | 8-pin mini-din port      |   |                                    |  | EA-MITSU-CBL-1 RS-422     |
|   | Q / QnA  | 9-pin D-sub port         | *See Note RS-232  |                                    |  |                           |
|   |  | 6-pin mini-din port      | *See Note RS-232  |                                    |  |                           |
| Omron                                       | C200 (Adapter), C500<br>CJ1, CS1, CQM1, CPM1, CPM2, C200   | 25-pin D-sub port        | N/A   | Host Link                          | EA-OMRON-CBL RS-232                    |                           |
|   |  | 9-pin D-sub port         |   |                                    | *See Note RS-232                       |                           |
| Modicon                                     | 984 CPU, Quantum 113 CPU, AEG Modicon Micro Series 110 CPU | varies                   | N/A   | Modbus RTU                         | *See Note RS-232                       |                           |
| Siemens                                     | S7-200 CPU   | 9-pin D-sub port 0 or 1  |   |                                    | N/A                                    | PPI                       |

\* Note: See the C-more Micro Hardware User Manuals (P/N: EA1-MG6-USER-M or EA1-TCL-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).  
 \*\* Note: For EA1-S6ML and EA1-S6MLW, the PLC can provide 5 VDC through this cable. No external 12-24 VDC source is required, however, screen brightness is diminished and the alarm beep will not function. Low-Power Mode should be used during initial programming only. Connect an external Class 2, 12-24 VDC power source when the panel is installed in its application. EA1-T4CL and EA1-T6CL require an external power supply.



# C-more 4" & 6" Micro Communication Cables and Cable Kits

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

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Terms and Conditions

| Cable Description   | Cable Part Number      | Price |
|---|------------------------|-------|
| <b>Cables for direct connect to panel's serial Port1 (EA1-S6ML and EA1-S6MLW powered from PLC's serial port. EA1-T4CL and EA1-T6CL cannot be powered by a PLC and cannot communicate with a PLC through Port1.)</b> |                        |       |
| AutomationDirect Productivity Series, Do-more, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C).   | <b>DV-1000CBL</b>      | \$    |
| DirectLOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C).   | <b>D4-1000CBL</b>      | \$    |
| DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C). Use with DV-1000CBL cable.   | <b>FA-15HD</b>         | \$    |
| DirectLOGIC PLC 15-pin D-sub port, DL405 (RS-232C). Use with DV-1000CBL cable.  | <b>FA-CABKIT</b>       | \$    |
| DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C).   | <b>OP-3CBL-1</b>       |       |
| <b>Cables used with serial Port2</b>  |                        |       |
| AutomationDirect Productivity Series, Do-more, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C).   | <b>EA-2CBL</b>         |       |
| DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C).  | <b>EA-2CBL-1</b>       |       |
| DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C).   | <b>EA-3CBL</b>         |       |
| DirectLOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C).   | <b>EA-4CBL-1</b>       |       |
| DirectLOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCMs (RS-232C).   | <b>EA-4CBL-2</b>       |       |
| Allen-Bradley MicroLogix 1000, 1100, 1200, 1400 & 1500 (RS-232C)  | <b>EA-MLOGIX-CBL</b>   |       |
| Allen-Bradley SLC 5-03/04/05, ControlLogix, CompactLogix, FlexLogix DF1 port (RS-232C)  | <b>EA-SLC-232-CBL</b>  |       |
| Allen-Bradley PLC-5 DF1 port (RS-232C)  | <b>EA-PLC5-232-CBL</b> |       |
| Allen-Bradley MicroLogix, SLC-5-01/02/03, PLC5 DH485 port (RS-232C)   | <b>EA-DH485-CBL</b>    |       |
| GE 90/30 and 90/70, Micro 90, VersaMax Micro (Port 2) 15-pin D-sub port (RS-422A)   | <b>EA-90-30-CBL</b>    |       |
| mitsubishi FX Series 25-pin port (RS-422A)  | <b>EA-MITSU-CBL</b>    |       |
| MITSUBISHI FX Series 8-pin mini-DIN (RS-422A)   | <b>EA-MITSU-CBL-1</b>  |       |
| OMRON Host Link C200 Adapter, C500 (RS-232C)  | <b>EA-OMRON-CBL</b>    |       |



DV-1000CBL



D4-1000CBL



OP-3CBL-1



FA-15HD



FA-CABKIT



EA-2CBL-1



EA-2CBL



EA-4CBL-1



EA-3CBL



EA-MLOGIX-CBL



EA-4CBL-2



EA-PLC5-232-CBL



EA-SLC-232-CBL



EA-DH485-CBL



EA-90-30-CBL



EA-MITSU-CBL



EA-MITSU-CBL-1



EA-OMRON-CBL

# C-more 8" and 10" Micro Panels Overview

## Overview

**C-more** 8" and 10" Micro panels are full color, TFT models that offer touch screen capability and customizable graphics.

In addition to the simple panel configuration software, a very helpful feature is the built-in project simulator. The project simulator allows you to view your project on the PC screen as it would appear on the panel and to test all your screens before downloading the project to the panel. You can simulate your entire project at any stage of development and even simulate the function keys.

## Getting started

Installing the software and configuring the **C-more** Micro panel is simple. You will need the following to successfully connect and configure a project for the panel:

- **C-more** Micro panel
- **C-more** Micro Programming Software EA-MG-PGMSW (Downloadable version available from the **AutomationDirect** web site at no charge.)
- **C-more** Micro USB Programming Cable such as USB-CBL-AB6, used to connect between a PC and the Micro panel's built-in programming port.
- Power source – An external Class 2, 12-24 VDC power source is required. Recommended power supply is AutomationDirect part number PSC-24-030.
- Personal computer – to run the **C-more** Micro programming software
- Communications Cable (serial) – to connect the **C-more** Micro panel to your PLC or other controller with which the panel will communicate.

## Drivers for your Controller

**C-more** 8" and 10" Micro panels have the following drivers available for connection to AutomationDirect PLCs and many other devices:

- AutomationDirect Productivity series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **Direct**LOGIC K-sequence, **Direct**LOGIC **Direct**NET, **Direct**LOGIC Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500) Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA



EA3-T8CL



EA3-T10CL



**NOTE: EA3-T8CL and EA3-T10CL require Software and Firmware Version 3.5 or later. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

## Features

### Seven Programmable Function Keys

- Increment / decrement values
- Trigger recipes
- Change screens

### Communication Ports

- RJ12 RS-232 serial communication port
- 15-pin D-sub RS-232/422/485 serial communication port

### Bitmaps

- 800 X 600 pixel graphical display supports bitmaps
- Use bitmap images of pushbuttons, switches, indicators, your company logo
- Use provided library of bitmaps
- Create your own library of bitmaps

### Text - 40 lines

- 100 lines by 200 characters of static text in landscape orientation
- 133 lines by 150 characters of static text in portrait orientation
- Look up text, scroll up to 128 characters
- Dynamic text, embedded variables, on/off phrases, scroll up to 40 characters
- Scroll text object with up to 128 characters

### Beep

- Beep to indicate an alarm
- Beep for a special message
- Beep to verify when button is pressed

### Bar graphs

- Line, vertical, horizontal, skinny, fat, multiple

### Data entry

- Pop-up numeric key pad on the screen
- Increment/decrement a value by touching arrows
- Pop-up text entry keypad on the screen

### Recipes

Each recipe button transfers up to 99 values from PLC source registers to PLC destination registers and/or from the recipe table to PLC destination registers.

### 32K Colors



The TFT panel has a palette of 32K colors available to make full use of color for objects and bitmaps as well as backgrounds.

### Up to 999 Screens

**C-more** Micro supports up to 999 screens. Screen quantity is limited by memory usage which is determined by the total bitmaps, objects, etc. that are used.






# C-more 8" and 10" Micro Panels Overview

| C-more 8" and 10" TFT Micro Panels |  |       |
|------------------------------------|--|-------|
| Part Number                        | Description  | Price |
| <b>EA3-T8CL</b>                    | <br><i>C-more</i> Micro touch screen interface panel, 8-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Compatible with EA-MG-PGMSW programming software version 3.5 or later.  | <---> |
| <b>EA3-T10CL</b>                   | <br><i>C-more</i> Micro touch screen interface panel, 10-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only). Compatible with EA-MG-PGMSW programming software version 3.5 or later. | <---> |



**Note: Software and Firmware Version 3.5 or later is required with models EA3-T8CL and EA3-T10CL. Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

| C-more Micro Programming Software |  |       |
|-----------------------------------|--|-------|
| Part Number                       | Description  | Price |
| <b>EA-MG-PGMSW</b>                | <br><i>C-more</i> Micro panel Windows-based configuration software. Requires XP Professional 32-bit with Service Pack 2, Vista, Windows 7 32-bit or 64-bit or Windows 8 32-bit or 64 bit. Requires USB port connection from PC to touch panel. Includes CD-ROM. Programming cable sold separately. Downloadable version available from the Web site at no charge. Software Help Files included in download. Programs all C-more Micro Panels | \$    |
| <b>USB-CBL-AB3</b>                | <br>The <i>C-more</i> Micro TFT panel requires a USB A-to-B type cable to connect a personal computer to the panel for programming. (Note: The TFT panel includes a built-in USB to serial converter and the USB driver will appear as a COM port to the PC when properly installed.)   | \$    |
| <b>USB-CBL-AB6</b>                |  | \$    |
| <b>USB-CBL-AB10</b>               |  | \$    |
| <b>USB-CBL-AB15</b>               |  | \$    |

| C-more 8" and 10" Micro Panel Accessories |   |       |
|---|---|-------|
| Part Number                               | Description   | Price |
| <b>EA-8-COV2</b>                          | <br>Optional clear screen overlay used to protect <i>C-more</i> 8" Micro displays from minor scratches and wear. Package contains 3 clear screen overlays. | \$    |
| <b>EA-10-COV2</b>                         | Optional clear screen overlay used to protect <i>C-more</i> 10" Micro displays from minor scratches and wear. Package contains 3 clear screen overlays.   | \$    |



**For a list of supported protocols and cabling options refer to the 8" & 10" C-more Micro Protocols and cabling chart starting on page CK-77.**



# C-more 8" Micro TFT Touch Panel

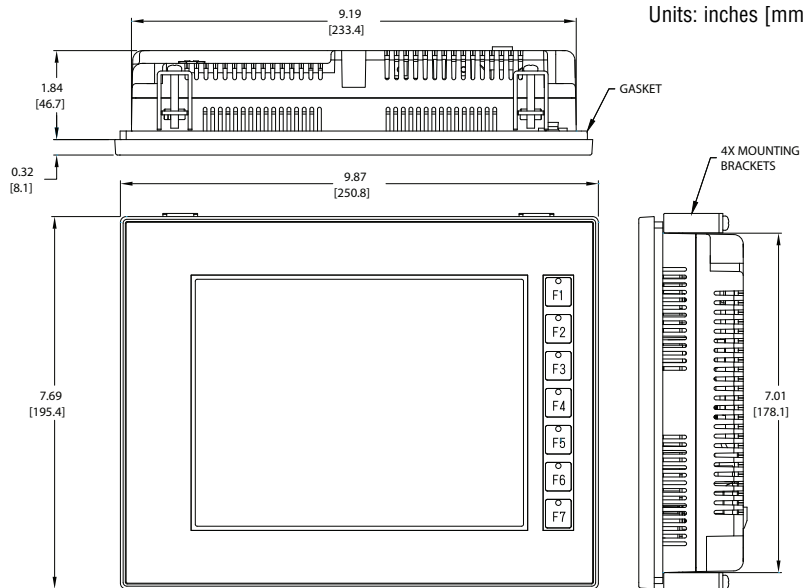
Model EA3-T8CL **C-more** 8" Micro touch panel has a 8.4-inch TFT LCD 800 x 600 pixel display and a palette of 32K colors for customizing objects, screen backgrounds and displaying bitmap graphics. It features seven user-defined function keys, each key with a user-defined red LED indicator. In landscape mode, the panel can display 100 lines of static text, maximum 200 characters wide. In portrait mode the screens can display 133 lines of static text, maximum 150 characters wide. The panels also support 40 characters of dynamic text with embedded variables. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). **C-more** 8" Micro TFT panels are powered from a Class 2, 12-24 VDC power supply.

Part No. EA3-T8CL



## Dimensions

Units: inches [mm]

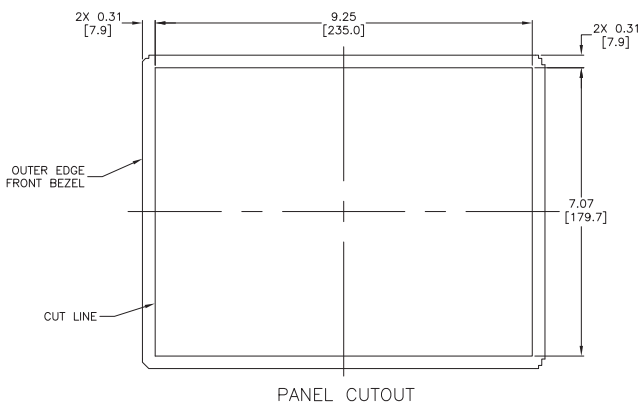


## Features

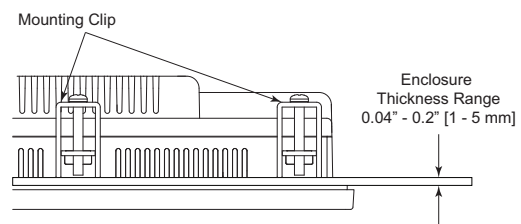
- Touch screen display
- Free downloadable programming software
- 800 x 600 Dot display with up to 100 lines by 200 characters of text and graphics in landscape mode
- Up to 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- Seven programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 32K colors
- Optional replaceable clear screen overlay
- 30MB memory
- Built-in USB type B programming port
- Built-in 15-pin serial communications port
- Built-in RJ12 serial communications port
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and red LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



## Panel Cutout



## Panel Thickness





# C-more 10" Micro TFT Touch Panel

Model EA3-T10CL **C-more** 10" Micro touch panel has a 10.4-inch TFT LCD 800 x 600 pixel display and a palette of 32K colors for customizing objects, screen backgrounds and displaying bitmap graphics. It features seven user-defined function keys, each key with a user-defined red LED indicator. In landscape mode, the panel can display 100 lines of static text, maximum 200 characters wide. In portrait mode the screens can display 133 lines of static text, maximum 150 characters wide. The panels also support 40 characters of dynamic text with embedded variables. It is rated UL for use on a flat surface of Type 1, 4X enclosure (for indoor use only). **C-more** 8" Micro TFT panels are powered from a Class 2, 12-24 VDC power supply.

Part No. EA3-T10CL



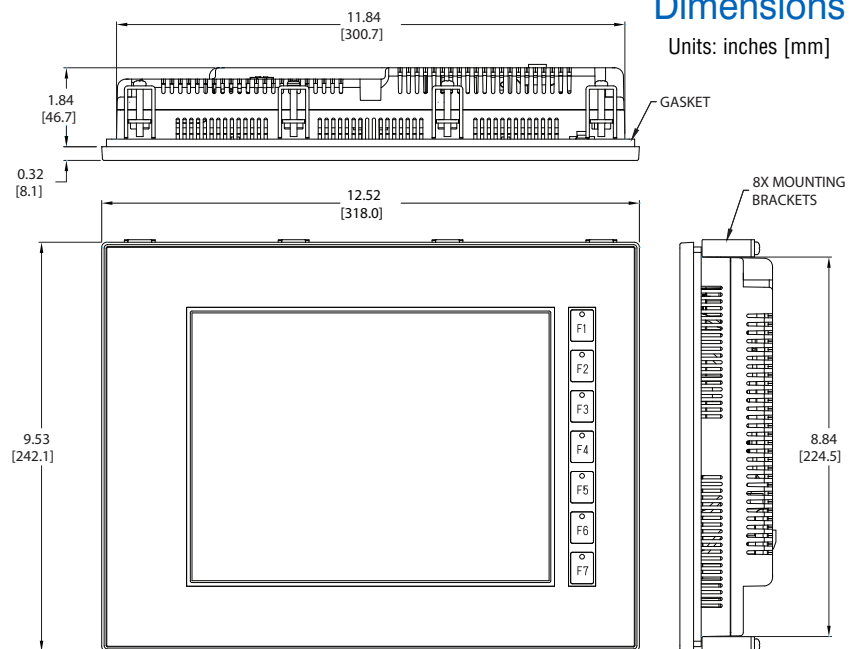
## Features

- Touch screen display
- Free downloadable programming software
- 800 x 600 pixel display with up to 100 lines by 200 characters of text and graphics in landscape mode
- Up to 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- Seven programmable function keys can change with every screen. Can increment / decrement values, trigger recipes, view index of screens.
- 32K colors
- Optional replaceable clear screen overlay
- 30MB memory
- Built-in USB type B programming port
- Built-in 15-pin serial communications port
- Built-in RJ12 serial communications port
- Built-in Alarm Control setup that activates beep, backlight flash, customized alarm banner, and red LED blinking
- 0 to 50 °C (32 to 122 °F) operating temperature range (IEC 60068-2-14)
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

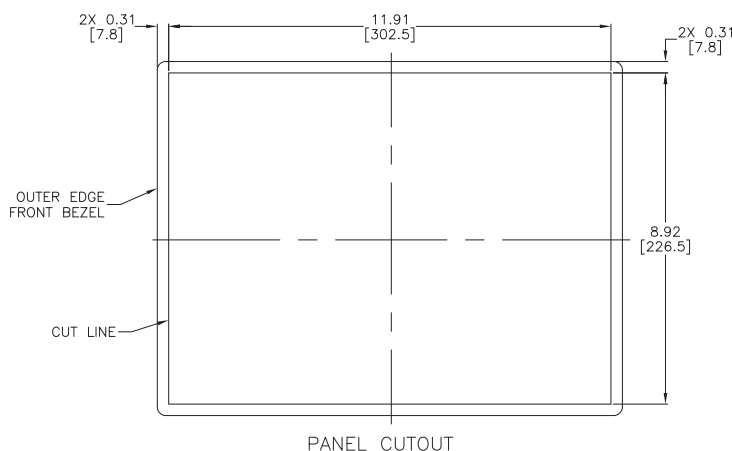


## Dimensions

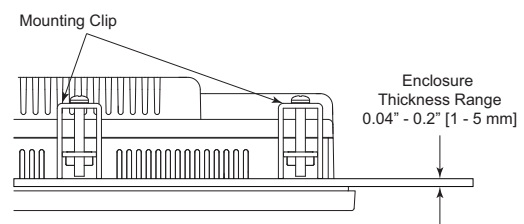
Units: inches [mm]



## Panel Cutout



## Panel Thickness



# C-more 8" and 10" Micro Specifications

| Specifications  |  |   |
|---|--|---|
| Part Number:  | <b>EA3-T8CL</b>  | <b>EA3-T10CL</b>  |
| <b>Description:</b>   | 800 x 600 pixels LCD display (Landscape mode),<br>Seven user defined keypad function buttons with seven user defined LED indicators  |   |
| <b>Display:</b>   |  |   |
| • <b>Type</b>   | 8.4" TFT Graphical type<br>with LED Backlight  | 10.4" TFT Graphical type<br>with LED Backlight  |
| • <b>Resolution</b>   | 800 (W) x 600 (H) pixels (Landscape Mode)<br>600 (W) x 800 (H) pixels (Portrait Mode)  |   |
| • <b>Color</b>  | 32768 colors   |   |
| • <b>Display Brightness (Reference)</b>                                     | 295 nits (typ)   | 270 nits (typ)  |
| • <b>Viewing Area Size</b>  | 6.86" (W) x 5.17" (H)<br>[174.2 mm x 131.2 mm]   | 8.46" (W) x 6.41" (H)<br>[214.8 mm x 162.7 mm]  |
| • <b>Active Area Size</b>   | 6.71" (W) x 5.03" (H)<br>[170.4 mm x 127.8 mm]   | 8.31" (W) x 6.24" (H)<br>[211.2 mm x 158.4 mm]  |
| • <b>Brightness</b>   | Adjusted from the panel's built-in configuration setup menu  |   |
| • <b>Viewing Angle (Landscape Mode)</b>                                     | 3, 9 o'clock axis → 80 degrees<br>6 o'clock axis → 60 degrees<br>12 o'clock axis → 80 degrees  | 3, 9 o'clock axis → 80 degrees<br>6 o'clock axis → 80 degrees<br>12 o'clock axis → 60 degrees |
| <b>Backlight:</b>   |  |   |
| • <b>Type</b>   | LED  |   |
| • <b>Color</b>  | White  |   |
| • <b>User Replaceable</b>   | No   |   |
| <b>Touch Screen:</b>  |  |   |
| • <b>Type</b>   | Analog touch panel   |   |
| • <b>Operation</b>  | 82 gram force [0.8 N] maximum  |   |
| • <b>Life</b>   | Minimum of 1,000,000 cycles  |   |
| <b>Features:</b>  |  |   |
| • <b>User Memory</b>  | 30MB   |   |
| • <b>Number of Screens</b>  | Up to 999 – limited by project memory usage  |   |
| • <b>Beep (Internal)</b>  | Yes  |   |
| • <b>Keypad Function Buttons</b>  | Seven user defined function key buttons with the ability to<br>customize label with an overlay.<br>Minimum of 500,000 cycles   |   |
| • <b>Keypad Function Button LEDs</b>  | Each function key button includes a red LED that can be user programmed.   |   |
| • <b>Programming Port</b>   | USB 2.0 Type B   |   |
| • <b>Serial Communications</b>  | RJ12 serial communications port (RS-232)<br>15-pin D-sub serial communications port (RS-232, RS-485 / 422)   |   |
| <b>Screen Objects:</b>  |  |   |
| • <b>Functional Devices</b>   | Push Button, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Text Entry, Screen Change Push Button, Screen Selector, Adjust Contrast, Function Key Configuration Object, Real Time Graph, Line Graph, Analog Meter. |   |
| • <b>Static Shapes</b>  | Lines, Rectangles, Circles and Frames  |   |
| • <b>Displayable Fonts</b>  | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts  |   |
| <b>C-more 8" and 10" Micro panel specifications continued on next page.</b> |  |   |



# C-more 8" and 10" Micro Specifications

| Specifications (cont'd)                          |  |   |
|--|--|---|
| Part Number:                                     | EA3-T8CL   | EA3-T10CL   |
| <b>Electrical:</b>                               |  |   |
| • <b>Input Power</b>                             | 10.2 - 26.4 VDC, Class 2 power supply  |   |
| • <b>Power Consumption</b>                       | 8W   | 10W   |
| • <b>Maximum Inrush Current</b>                  | 10A for 1ms  |   |
| • <b>Acceptable External Power Drop Duration</b> | Maximum 1 ms   |   |
| <b>Environmental:</b>                            |  |   |
| • <b>Operating Temperature</b>                   | 0 to 50 °C (32 to 122 °F)<br>Maximum surrounding air temperature rating: 50 °C   |   |
| • <b>Storage Temperature</b>                     | -20 to +60 °C (-4 to +140 °F)  |   |
| • <b>Humidity</b>                                | 5-95% RH (non-condensing)  |   |
| • <b>Environmental Air</b>                       | No corrosive gasses permitted (EN61131-2 pollution degree 1)   |   |
| • <b>Housing Material</b>                        | ABS plastic  |   |
| • <b>Gasket Material</b>                         | Silicone rubber  |   |
| • <b>Overlay Sheet Material</b>                  | PET  |   |
| • <b>Vibration</b>                               | IEC60068-2-6 (Test Fc), 5-9 Hz: 3.5 mm amplitude, 9-150 Hz: 1.0G, sweeping, at a rate of 1 octave/min. (±10%), 10 sweep cycles per axis on each of 3 mutually perpendicular axes   |   |
| • <b>Shock</b>                                   | IEC60068-2-27 (Test Ea), 15 G peak, 11 ms duration, three shocks in each direction per axis, on 3 mutually perpendicular axes (total of 18 shocks)   |   |
| • <b>Noise Immunity</b>                          | NEMA ICS3-304<br>RFI, (145 MHz, 440 MHz 10 W @ 10 cm)<br>Impulse 1000 V @ 1 µs pulse   |   |
| • <b>Enclosure</b>                               | NEMA 250 type 4/4X indoor use only<br>UL50 type 4X indoor use only<br>IP-65 indoor use only<br>(When mounted correctly)  |   |
| • <b>Agency Approvals</b>                        | CE (EN61131-2), UL508, CUL Canadian C22.2 No. 142-M95, UL E157382, RoHS (2011/65/EU)<br>To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page |   |
| <b>Physical:</b>                                 |  |   |
| • <b>Dimensions</b>                              | 9.87" (W) x 7.69" (H) x 2.16" (D)<br>[250.7 mm x 195.3 mm x 54.9 mm]   | 12.52" (W) x 9.53" (H) x 2.16" (D)<br>[318.0 mm x 242.1 mm x 54.9 mm] |
| • <b>Enclosure Mounting Thickness Range</b>      | 0.04" - 0.2" [1 - 5 mm]  |   |
| • <b>Mounting Clip Screw Torque Range</b>        | 63 - 77 oz-in [0.45 - 0.55 Nm]   |   |
| • <b>Weight</b>                                  | 39.9 oz. (1130g)   | 57.1 oz. (1620g)  |



**NOTE: EA3-T8CL and EA3-T10CL cannot be powered by a PLC and cannot communicate with a PLC through the USB programming port**



**For a list of supported protocols and cabling options refer to the 8" & 10" C-more Micro Protocols and cabling chart starting on page CK-77.**

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Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

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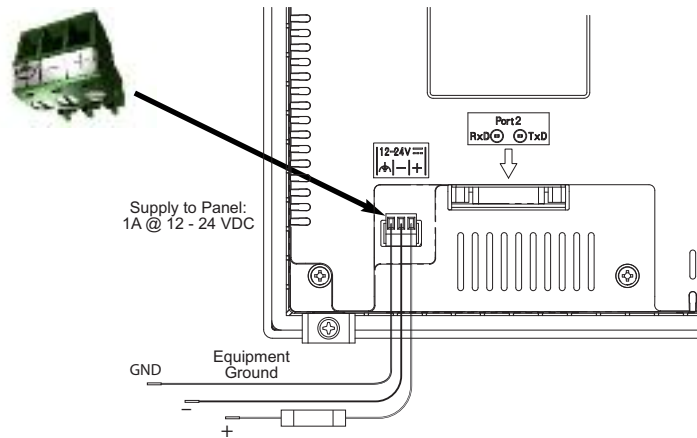
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# C-more 8" and 10" Micro Power Connection Wiring

## Providing power to the touch panel

The panel is powered by a Class 2, 1 Amp @ 12-24 VDC power source in normal operation. Recommended power supply is AutomationDirect part number PSC-24-030.

## 8" and 10" Panels wiring diagram



**NOTE: Recommended DC power supply to power the C-more Micro Panel, AutomationDirect Part No. PSC-24-030.**





# C-more 8" and 10" Micro Panel Accessories

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CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

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Productivity 3000

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C-More Micro HMI

ViewMarq Industrial Marquees

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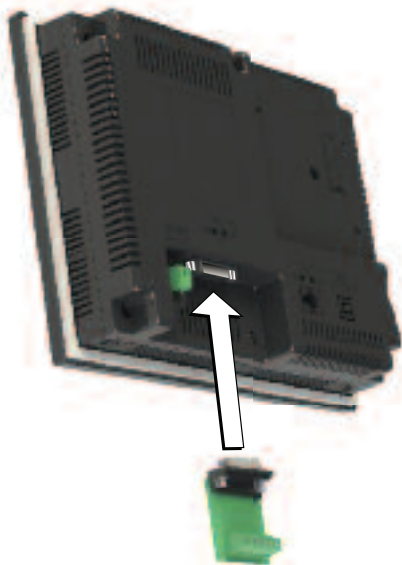
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## D-SUB 15-pin to Terminal Block Adapter

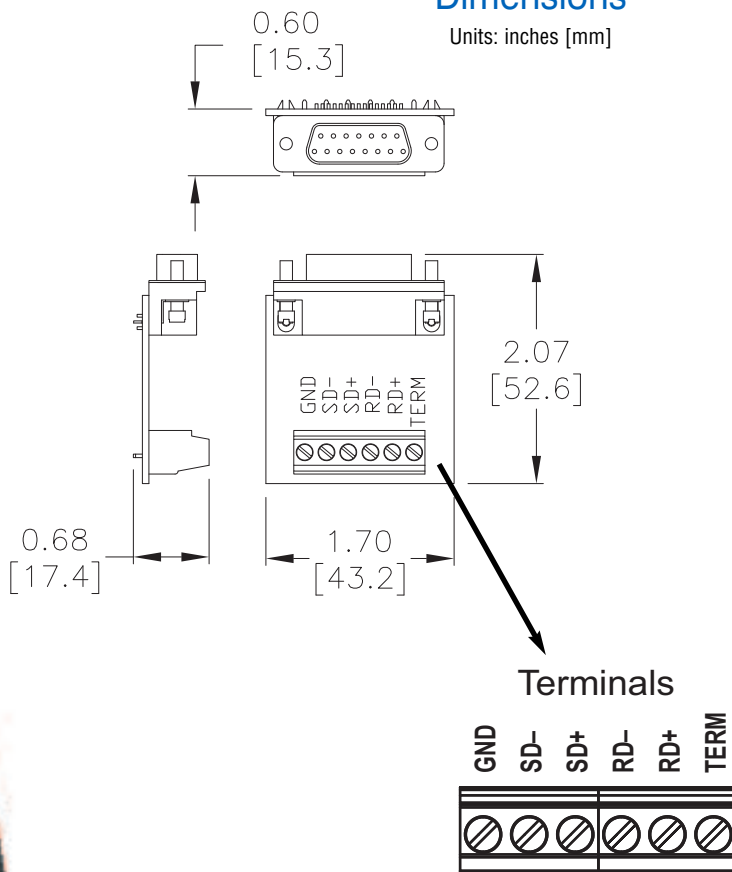
The EA-COMCON-3A adapter plugs into the 15-pin serial port on the rear of a **C-more** Micro panel to allow wire terminal connections for an RS-422/RS-485/DH-485 PLC communication cable.

**Part No.  
EA-COMCON-3A**



## Dimensions

Units: inches [mm]



# C-more 8" and 10" Micro Panel Accessories

## Clear Screen Overlay

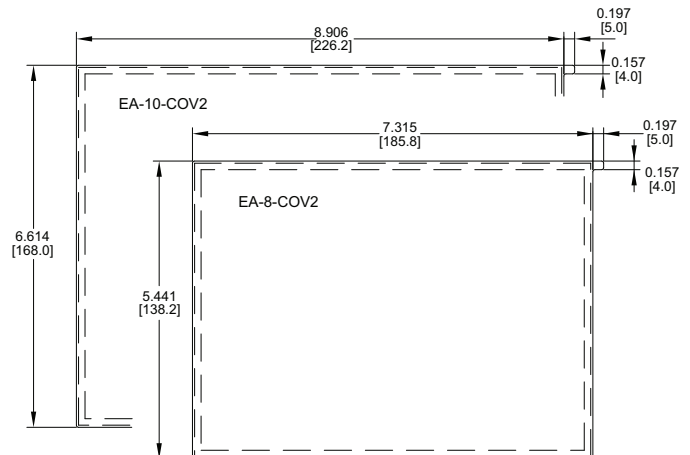
Optional clear screen overlay used to protect C-more 8" and 10" Micro displays from minor scratches and wear. Package contains three clear screen overlays.

**Part No. EA-8-COV2  
EA-10-COV2**



## Dimensions

Units: inches [mm]



## Clear Screen Overlay Installation

**Step 1**



**Remove the overlay from the package**

**Step 2**



**Remove the paper backing from the overlay**

**Step 3**



**Align the overlay with the screen and press the adhesive firmly into place**

**Step 4**



**Remove the protective film\***



**\*Note: The overlay cover ships with a thin protective film on the face that should be carefully removed after installation.**



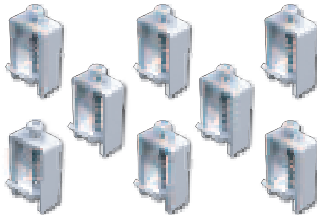
# C-more 8" and 10" Micro Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost C-more 8" and 10" Micro panel components.

## Replacement parts at a glance:

| Part Number          | Description  | Price  |
|----------------------|--|--------|
| <b>EA3-BRK</b>       | Replacement mounting clips for C-more Micro EA3 series (pack of 8)   | <--->  |
| <b>EA-MG-DC-CON</b>  | Replacement DC power connector (pack of 5)   | \$     |
| <b>EA3-8-GSK</b>     | Replacement mounting gasket for <b>C-more 8"</b> Micro panels  | <--->! |
| <b>EA3-10-GSK</b>    | Replacement mounting gasket for <b>C-more 10"</b> Micro panels   | <--->  |
| <b>EA3-MG-8-FKL</b>  | Replacement function key label insert for <b>C-more 8"</b> Micro panels (pk of 5; 3 blank, 1 F1-F7 for landscape, 1 F1-F7 for portrait)    | <--->  |
| <b>EA3-MG-10-FKL</b> | Replacement function key label insert for <b>C-more 10"</b> Micro panels (pk of 5; 3 blank, 1 F1-F7 for landscape, , 1 F1-F7 for portrait) | <--->  |

**Panel Mounting Clips**  
Part No. EA3-BRK



(pk of 8)

**DC Power Connector**  
Part No. EA-MG-DC-CON



(pk of 5)

**Panel Gasket**  
Part No. EA3-8-GSK



**Panel Gasket**  
Part No. EA3-10-GSK



**Function Keys Label Inserts**  
Part No. EA3-MG-8-FKL



(pk of 5; 3 blank, 1 F1-F7 for landscape, 1 F1-F7 for portrait)

**Function Keys Label Inserts**  
Part No. EA3-MG-8-FKL



(pk of 5; 3 blank, 1 F1-F7 for landscape, 1 F1-F7 for portrait)

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CLICK PLC

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Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

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Productivity 3000

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Software

C-More HMI

C-More Micro HMI

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# C-more 8" & 10" Micro PLC Connections

## Cabling requirements

When using the built in RJ12 serial port (Port1) on models EA3-T8CL or EA3-T10CL with the CLICK, ProductivitySeries, DL05, DL06, DL105, DL205, D3-350 and DL405 CPUs, your cabling choices are fairly simple.

- D0-CBL — connects to P3-530, P3-550, Do-more, CLICK, DL05, DL06, DL105, DL205, D3-350 and D4-450 phone jack.
- D4-1000CBL — connects to all DL405 CPU 15-pin ports.

The EA3-T8CL and EA3-T10CL cannot be powered from a PLC.

The **C-more** 8" and 10" Micro panels can communicate through a built-in 15-pin serial port (Port2) via RS-232, RS-422 and RS-485 using these cables.

- EA-2CBL — connects to P3-530, P3-550, Do-more, CLICK, DL05, DL105, DL205, D3-350 and D4-450 phone jack.
- EA-2CBL-1 — connects to D2-250, D250-1, D2-260, DL06 VGA connector.

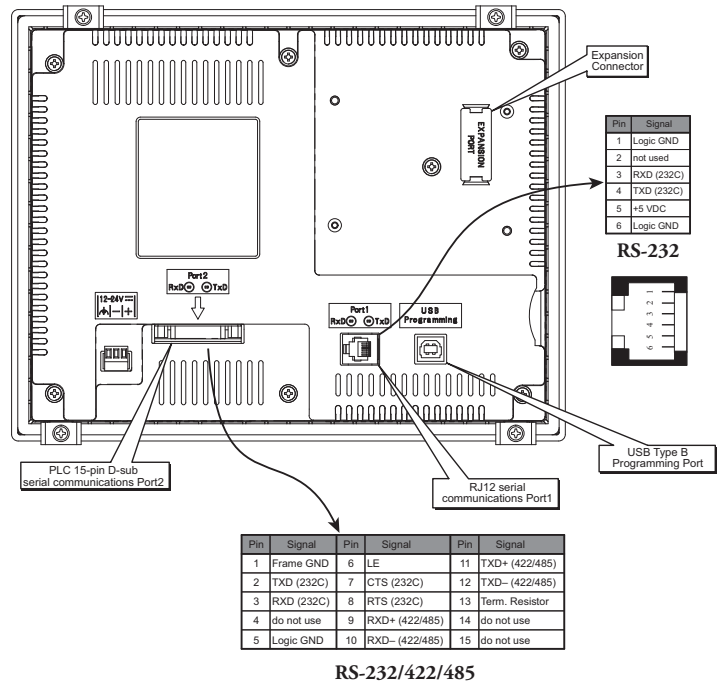
The USB programming port on these TFT models is for programming only.

## Drivers for your Controller

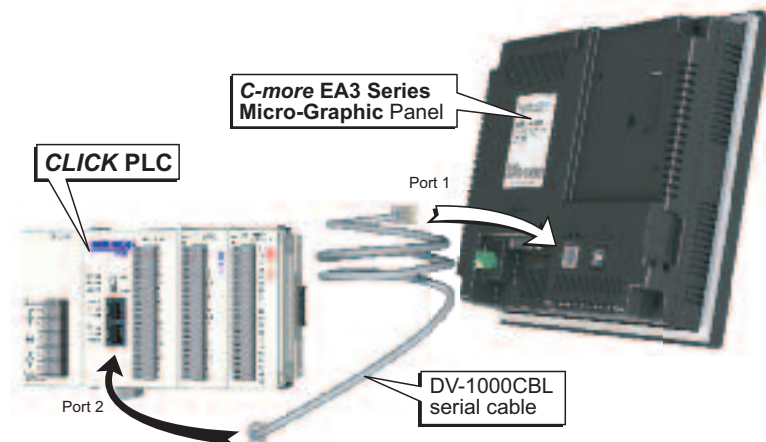
- AutomationDirect Productivity series
- AutomationDirect Do-more
- AutomationDirect CLICK (Modbus)
- **Direct**LOGIC K-sequence, **Direct**LOGIC **Direct**NET, **Direct**LOGIC Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- Omron Host Link (C200 Adapter, C500) Omron FINS serial (CJ1, CS1)
- GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)
- Mitsubishi Melsec FX
- Siemens PPI
- Entivity Modbus RTU
- AutomationDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

## Communication Ports

### EA3-T8CL & EA3-T10CL



## C-more EA3 Micro Port 1 to CLICK PLC Port 2





# C-more 8" & 10" Micro Communication Protocols & Cabling Chart

Company Information

Control Systems Overview

CLICK PLC

Do-More PLCs Overview

Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

DirectLOGIC DL05/06

DirectLOGIC DL105

DirectLOGIC DL205

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| Controller Compatibility & Connection Chart |              |                              |   |                                  |  |                                  |
|---|--------------|------------------------------|---|----------------------------------|--|----------------------------------|
| PLC   |              |                              | C-more 8" and 10" Micro Panel   |                                  |  |                                  |
| Family                                      | CPU          | PLC Port & Type              | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                                  |  |                                  |
|   |              |                              | Using panel's RJ12 Port1  |                                  | Using panel's Port2 DB 15-pin - female |                                  |
|   |              |                              | Protocol(s) Supported   | Components & Network Type        | Protocol(s) Supported                  | Components & Network Type        |
| CLICK                                       | all versions | Port 1 RJ12 - 6 pin          | Modbus (CLICK)  | DO-CBL RS-232                    | Modbus (CLICK)                         | EA-2CBL RS-232                   |
|   | Analog CPU's | Port 2 RJ12 - 6 pin          |   | N/A                              |  | * See Note RS-485                |
| Productivity Series                         |              | all versions                 | RS-232 RJ12 - 6 pin   | Productivity3000 Serial (P3-550) | DO-CBL RS-232                          | Productivity3000 Serial (P3-550) |
|   |              | RS-485 Port Term block 3-pin | N/A   |                                  | * See Note RS-485                      |                                  |
| Do-more                                     | all versions | RS-232 RJ12 - 6 pin          | Do-more Serial, K-sequence, Modbus RTU  | DO-CBL RS-232                    | Do-more Serial, K-sequence, Modbus RTU | EA-2CBL RS-232                   |
|   | H2-SERIO     | RS-232 RJ12 - 6 pin          |   |                                  |  |                                  |
|   | H2-SERIO-4   | RS-232 RJ12 - 6 pin          |   |                                  |  |                                  |
| Entivity                                    | H2-WinPLC    | RS-232 RJ12 - 6 pin          | Entivity Modbus RTU Modbus RTU  | DO-CBL RS-232                    | Entivity Modbus RTU Modbus RTU         | EA-2CBL RS-232                   |
|   | H2-SERIO     | RS-232 RJ12 - 6 pin          |   |                                  |  |                                  |
|   | H2-SERIO-4   | RS-232 RJ12 - 6 pin          |   |                                  |  |                                  |
| DirectLOGIC DL05                            | all versions | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DO-CBL RS-232                    | K-sequence, DirectNET, Modbus RTU      | EA-2CBL RS-232                   |
|   |              | Port 2 RJ12 - 6 pin          |   |                                  |  |                                  |
|   | D0-DCM       | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DO-CBL RS-232                    | K-sequence, DirectNET, Modbus RTU      | EA-2CBL RS-232                   |
|   |              | Port 2 DB15HD (female)       |   | DO-CBL + FA-15HD RS-232          |  | * See Note RS-422                |
| DirectLOGIC DL06                            | all versions | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DO-CBL RS-232                    | K-sequence, DirectNET, Modbus RTU      | EA-2CBL RS-232                   |
|   |              | Port 2 DB15HD (female)       |   | DO-CBL + FA-15HD RS-232          |  | EA-2CBL-1 RS-232                 |
|   |              |                              |   | Modbus RTU                       |  | * See Note RS-485 Modbus only    |
|   | D0-DCM       | Port 1 RJ12 - 6 pin          | K-sequence, DirectNET, Modbus RTU   | DO-CBL RS-232                    | K-sequence, DirectNET, Modbus RTU      | EA-2CBL RS-232                   |
|   |              | Port 2 DB15HD (female)       |   | DO-CBL + FA-15HD RS-232          |  | EA-2CBL-1 RS-232                 |
|   |              |                              |   | Modbus RTU                       |  | * See Note RS-485 Modbus only    |
| DirectLOGIC DL105                           | all versions | Port 1 RJ12 - 6 pin          | K-sequence  | DO-CBL RS-232                    | K-sequence                             | EA-2CBL RS-232                   |

\* Note: See the C-more EA3 Micro Hardware User Manual (P/N: EA3-USER-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

EA3-T8CL and EA3-T10CL require an external power supply. PLC Compatibility & Connection Chart continued on next page.



# C-more 8" & 10" Micro Communication Protocols & Cabling Chart (cont'd)

| Controller Compatibility & Connection Chart |                           |                                    |   |                                    |  |                                    |                         |
|---|---------------------------|------------------------------------|---|------------------------------------|--|------------------------------------|-------------------------|
| PLC   |                           |                                    | C-more 8" and 10" Micro Panel   |                                    |  |                                    |                         |
| Family                                      | CPU                       | Port & Type                        | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                                    |  |                                    |                         |
|   |                           |                                    | Using panel's RJ12 port 1   |                                    | Using panel's Port2 DB 15-pin - female |                                    |                         |
|   |                           |                                    | Protocol(s) Supported   | Components & Network Type          | Protocol(s) Supported                  | Components & Network Type          |                         |
| <b>Direct LOGIC DL205</b>                   | D2-230                    | Port 1 RJ12 - 6 pin                | K-sequence  | D0-CBL RS-232                      | K-sequence                             | EA-2CBL RS-232                     |                         |
|   | D2-240                    | Port 1 RJ12 - 6 pin                | K-sequence  | D0-CBL RS-232                      | K-sequence                             | EA-2CBL RS-232                     |                         |
|   |                           | Port 2 RJ12 - 6 pin                | K-sequence, Direct NET,   |                                    | K-sequence, Direct NET,                |                                    |                         |
|   | D2-250-1                  | D2-250-1                           | Port 2 DB15HD (female)  | K-sequence, Direct NET, Modbus RTU | D0-CBL RS-232                          | K-sequence, Direct NET, Modbus RTU | EA-2CBL RS-232          |
|   |                           |                                    |   |                                    | D0-CBL + FA-15HD RS-232                |                                    | EA-2CBL-1 RS-232        |
|   | D2-260                    | Port 1 RJ12 - 6 pin                | Port 2 DB15HD (female)  | K-sequence, Direct NET, Modbus RTU | D0-CBL RS-232                          | K-sequence, Direct NET, Modbus RTU | EA-2CBL RS-232          |
|   |                           |                                    |   |                                    |  |                                    | D0-CBL + FA-15HD RS-232 |
|   | D2-DCM                    | Port 1 DB 25 pin (female)          |   | K-sequence, Direct NET, Modbus RTU | *See Note RS-232                       | Direct NET                         | EA-4CBL-2 RS-232        |
| WINPLC                                      | Port 1 RJ12 - 6 pin       |                                    | Modbus RTU  | D0-CBL RS-232                      | Modbus RTU                             | EA-2CBL RS-232                     |                         |
| <b>Direct LOGIC DL305</b>                   | D3-330 or D3-340          | D3-232-DCU DB 25 pin (female)      | Direct NET  | D0-CBL +FA-CABKIT RS-232           | Direct NET                             | EA-4CBL-2 RS-232                   |                         |
|   |                           | D3-422-DCU DB 25 pin (female)      | N/A   |                                    | Direct NET                             | *See Note RS-422                   |                         |
|   | D3-340                    | Port 1 RJ11 - 4 pin                | Direct NET  | OP-3CBL-1 RS-232                   | Direct NET                             | EA-3CBL RS-232                     |                         |
|   |                           | Port 2 RJ11 - 4 pin                | Direct NET, Modbus RTU  |                                    | Direct NET, Modbus RTU                 |                                    |                         |
|   | D3-350                    | Port 1 RJ12 - 6 pin                | K-sequence, Direct NET  | D0-CBL RS-232                      | K-sequence, Direct NET                 | EA-2CBL RS-232                     |                         |
|   |                           | Port 2 DB 25 pin (female)          | K-sequence, Direct NET, Modbus RTU  | *See Note RS-232                   | K-sequence, Direct NET, Modbus RTU     | EA-4CBL-2 RS-232                   |                         |
| D3-DCM D3-350 only                          | Port 1 DB 25 pin (female) | K-sequence, Direct NET, Modbus RTU | *See Note RS-232  | Direct NET                         | EA-4CBL-2 RS-232                       |                                    |                         |
|   |                           |                                    |   |                                    | *See Note RS-422                       |                                    |                         |

\* Note: See the C-more EA3 Micro Hardware User Manual (P/N: EA3-USER-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

EA3-T8CL and EA3-T10CL require an external power supply.  
 PLC Compatibility & Connection Chart continued on next page.



# C-more 8" & 10" Micro Communication Protocols & Cabling Chart (cont'd)

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Do-More H2 PLC

Do-More T1H PLC

DirectLOGIC PLCs Overview

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DirectLOGIC DL105

DirectLOGIC DL205

DirectLOGIC DL305

DirectLOGIC DL405

Productivity Controller Overview

Productivity 3000

Universal Field I/O

Software

C-More HMI

C-More Micro HMI

ViewMarq Industrial Marquees

Other HMI

Communications

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| Controller Compatibility & Connection Chart |        |                           |   |   |  |                                      |
|---|--------|---------------------------|---|---|--|--------------------------------------|
| PLC   |        |                           | C-more 8" and 10" Micro Panel   |   |  |                                      |
| Family                                      | CPU    | Port & Type               | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |   |  |                                      |
|   |        |                           | Using panel's RJ12 port 1   |   | Using panel's Port2 DB 15-pin - female |                                      |
|   |        |                           | Protocol(s) Supported   | Components & Network Type               | Protocol(s) Supported                  | Components & Network Type            |
| DirectLOGIC DL405                           | D4-430 | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or D0-CBL & FA-CABKIT RS-232 | K-sequence                             | EA-4CBL-1 RS-232                     |
|   |        | Port 1 DB 25 pin (female) | K-sequence, DirectNET   | D0-CBL & FA-CABKIT RS-232               | K-sequence, DirectNET                  | EA-4CBL-2 RS-232<br>*See Note RS-422 |
|   | D4-440 | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or D0-CBL & FA-CABKIT RS-232 | K-sequence                             | EA-4CBL-1 RS-232                     |
|   |        | Port 1 DB 25 pin (female) | K-sequence, DirectNET   | D0-CBL & FA-CABKIT RS-232               | K-sequence, DirectNET                  | EA-4CBL-2 RS-232<br>*See Note RS-422 |
|   | D4-450 | Port 0 DB 15 pin (female) | K-sequence  | D4-1000CBL or D0-CBL & FA-CABKIT RS-232 | K-sequence                             | EA-4CBL-1 RS-232                     |
|   |        | Port 1 DB 25 pin (female) | K-sequence, DirectNET, Modbus RTU   | D0-CBL & FA-CABKIT RS-232               | K-sequence, DirectNET, Modbus RTU      | EA-4CBL-2 RS-232<br>*See Note RS-422 |
|   |        | Port 3 DB 25 pin (female) | N/A   |   | K-sequence, DirectNET, Modbus RTU      | *See Note RS-422                     |
|   |        | Port 2 RJ12 - 6 pin       | K-sequence, DirectNET   | D0-CBL RS-232                           | K-sequence, DirectNET                  | EA-2CBL RS-232                       |
|   | D4-DCM | Port 1 DB 25 pin (female) | K-sequence, DirectNET, Modbus RTU   | *See Note RS-232                        | DirectNET                              | EA-4CBL-2 RS-232<br>*See Note RS-422 |

\* Note: See the C-more EA3 Micro Hardware User Manual (P/N: EA3-USER-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

EA3-T8CL and EA3-T10CL require an external power supply.  
PLC Compatibility & Connection Chart continued on next page.

# C-more 8" & 10" Micro Communication Protocols & Cabling Chart (cont'd)

| Controller Compatibility & Connection Chart |  |                                  |   |                           |  |                           |                          |
|---|--|----------------------------------|---|---------------------------|--|---------------------------|--------------------------|
| PLC   |  |                                  | C-more 8" and 10" Micro Panel   |                           |  |                           |                          |
| Family                                      | CPU  | Port & Type                      | Panel to PLC Cabling Components Required for Specific Port and Protocol being used. |                           |  |                           |                          |
|   |  |                                  | Using panel's RJ12 port 1   |                           | Using panel's Port2 DB 15-pin - female |                           |                          |
|   |  |                                  | Protocol(s) Supported   | Components & Network Type | Protocol(s) Supported                  | Components & Network Type |                          |
| Allen-Bradley MicroLogix                    | 1000, 1100, 1200, 1400, 1500                               | 8-pin mini-din port              | N/A   | N/A                       | DF1 Full Duplex<br>DF1 Half Duplex     | EA-MLOGIX-CBL<br>RS-232   |                          |
|   |  | RJ45 8-pin phone plug            |   |                           | DH485/AIC/AIC+                         | EA-DH485-CBL<br>RS-232    |                          |
| Allen-Bradley SLC500                        | 5/03, 5/04, 5/05   | 9-pin D-sub port                 |   |                           | DF1 Full Duplex<br>DF1 Half Duplex     | EA-SLC-232-CBL<br>RS-232  |                          |
|   |  | RJ45 8-pin phone plug            |   |                           | DH485/AIC/AIC+                         | EA-DH485-CBL<br>RS-232    |                          |
| Allen-Bradley ControlLogix                  | all  | 9-pin D-sub port                 |   |                           | DF1 Full Duplex<br>DF1 Half Duplex     | EA-SLC-232-CBL<br>RS-232  |                          |
| Allen-Bradley CompactLogix                  | all  | 9-pin D-sub port                 |   |                           | DF1 Full Duplex<br>DF1 Half Duplex     | EA-SLC-232-CBL<br>RS-232  |                          |
| Allen-Bradley FlexLogix                     | all  | 9-pin D-sub port                 |   |                           | DF1 Full Duplex<br>DF1 Half Duplex     | EA-SLC-232-CBL<br>RS-232  |                          |
| Allen-Bradley PLC5                          | all  | 25-pin D-sub port                |   |                           | DF1 Full Duplex                        | EA-PLC5-232-CBL<br>RS-232 |                          |
|   |  | RJ45 8-pin phone plug            |   |                           | DH485/AIC/AIC+                         | EA-DH485-CBL<br>RS-232    |                          |
| GE  | 90/30  | 15-pin D-sub port                |   |                           | N/A                                    | N/A                       | EA-90-30-CBL<br>RS-422   |
|   | Micro 90, VersaMax Micro                                   | RJ45 Port 1                      |   |                           |  |                           | SNPX                     |
|   |  |                                  |   |                           | 15-pin D-sub Port 2                    |                           | EA-90-30-CBL<br>RS-422   |
| Mitsubishi                                  | Melsec FX Series   | 25-pin D-sub port                |   |                           | N/A                                    | N/A                       | EA-MITSU-CBL<br>RS-422   |
|   |  | 8-pin mini-din port              |   |                           |  |                           | EA-MITSU-CBL-1<br>RS-422 |
|   | Q / QnA  | 9-pin D-sub port                 | *See Note<br>RS-232   |                           |  |                           |                          |
|   |  | 6-pin mini-din port              | *See Note<br>RS-232   |                           |  |                           |                          |
| Omron                                       | C200 (Adapter), C500                                       | 25-pin D-sub port                | Host Link   | EA-OMRON-CBL<br>RS-232    |  |                           |                          |
|   |  | CJ1, CS1, CQM1, CPM1, CPM2, C200 | FINS  | *See Note<br>RS-232       |  |                           |                          |
| Modicon                                     | 984 CPU, Quantum 113 CPU, AEG Modicon Micro Series 110 CPU | varies                           | Modbus RTU  | *See Note<br>RS-232       |  |                           |                          |
| Siemens                                     | S7-200 CPU   | 9-pin D-sub port 0 or 1          | PPI   | *See Note<br>RS-485       |  |                           |                          |

\* Note: See the C-more EA3 Micro Hardware User Manual (P/N: EA3-USER-M), Chapter 6: PLC Communications, for wiring diagrams that the user can use to construct their own cables. The manual is available for download at [www.automationdirect.com](http://www.automationdirect.com).

EA3-T8CL and EA3-T10CL require an external power supply.  
PLC Compatibility & Connection Chart continued on next page.

# C-more 8" & 10" Micro Communication Cables and Cable Kits

| Cable Description  | Cable Part Number      | Price |
|--|------------------------|-------|
| <b>Cables used with RJ-12 RS-232 serial Port1</b>  |                        |       |
| AutomationDirect Productivity Series, Do-more, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C) 3.66m (12ft) cable length | <b>D0-CBL</b>          | \$    |
| DirectLOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C) 2m (6.56 ft) cable length   | <b>D4-1000CBL</b>      | \$    |
| DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C)<br><b>Use with D0-CBL cable.</b>   | <b>FA-15HD</b>         | \$    |
| DirectLOGIC PLC 15-pin D-sub port, DL405 (RS-232C)<br><b>Use with D0-CBL cable.</b>  | <b>FA-CABKIT</b>       | \$    |
| DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C) 2m (6.56 ft) cable length   | <b>OP-3CBL-1</b>       | \$    |
| <b>Cables used with 15-pin RS-232/422/485 serial Port2</b>   |                        |       |
| AutomationDirect Productivity Series, Do-more, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C) 3m (9.8 ft) cable length  | <b>EA-2CBL</b>         | \$    |
| DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C) 3m (9.8 ft) cable length   | <b>EA-2CBL-1</b>       | \$    |
| DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C). 3m (9.8 ft) cable length   | <b>EA-3CBL</b>         | \$    |
| DirectLOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C). 3m (9.8 ft) cable length   | <b>EA-4CBL-1</b>       | \$    |
| DirectLOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCM's (RS-232C). 3m (9.8 ft) cable length  | <b>EA-4CBL-2</b>       | \$    |
| Allen-Bradley MicroLogix 1000, 1100, 1200, 1400 & 1500 (RS-232C) 3m (9.8 ft) cable length  | <b>EA-MLOGIX-CBL</b>   | \$    |
| Allen-Bradley SLC 5-03/04/05, ControlLogix, CompactLogix, FlexLogix DF1 port (RS-232C) 3m (9.8 ft) cable length  | <b>EA-SLC-232-CBL</b>  | \$    |
| Allen-Bradley PLC-5 DF1 port (RS-232C) 3m (9.8 ft) cable length  | <b>EA-PLC5-232-CBL</b> | \$    |
| Allen-Bradley MicroLogix, SLC-5-01/02/03, PLC5 DH485 port (RS-232C) 3m (9.8 ft) cable length   | <b>EA-DH485-CBL</b>    | \$    |
| GE 90/30 and 90/70, Micro 90, VersaMax Micro (Port 2) 15-pin D-sub port (RS-422A) 3m (9.8 ft) cable length   | <b>EA-90-30-CBL</b>    | \$    |
| MITSUBISHI FX Series 25-pin port (RS-422A) 3m (9.8 ft) cable length  | <b>EA-MITSU-CBL</b>    | \$    |
| MITSUBISHI FX Series 8-pin mini-DIN (RS-422A) 3m (9.8 ft) cable length   | <b>EA-MITSU-CBL-1</b>  | \$    |
| OMRON Host Link C200 Adapter, C500 (RS-232C) 3m (9.8 ft) cable length  | <b>EA-OMRON-C</b>      | \$    |
| <b>EA3-T8CL and EA3-T10CL cannot be powered by a PLC and cannot communicate with a PLC through the USB Programming Port.</b>   |                        |       |



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# C-more Micro Programming Software

## FREE software!

**C-more** Micro Programming Software can be downloaded at no charge or a CD version may be purchased by ordering EA-MG-PGMSW. The software requires a USB port on your PC to connect to the **C-more** Micro panel. Software Help Files are included in the download. This software programs all the **C-more** Micro panels (does not program the **C-more** 6" through 15" touch panels).



**Note: This software is used to program C-more Micro panels only.**  
**Part Numbers: EA1-S3ML, EA1-S3ML-N, EA1-S3MLW, EA1-S3MLW-N, EA1-T4CL, EA1-S6ML, EA1-S6MLW, EA1-T6CL, EA3-T8CL, EA3-T10CL**



**NOTES: Software and Firmware Version 3.5 or later is required with models EA3-T8CL and EA3-T10CL.**  
**Software and Firmware Version 3.0 or later is required with model EA1-T4CL.**  
**Software and Firmware Version 2.5 or later is required with model EA1-T6CL.**  
**Software and Firmware Version 2.0 or later is required with models EA1-S6ML and EA1-S6MLW.**  
**Software and Firmware Version 1.5 or later is required with models EA1-S3MLW and EA1-S3MLW-N.**  
**Available for free download at [www.automationdirect.com](http://www.automationdirect.com).**

**C-more** Micro Programming Software is a spin-off of its powerful sibling **C-more** Touch Panel. It offers very high end features designed to reduce your configuration time. Simply drag and drop the objects from the object list (right side of screen) onto the screen construction area. Then configure your PLC tags and click on the objects you wish to use. Use the built-in simulator to review your work on your PC before ever downloading your project! The time saving benefits of the **C-more** Micro configuration software could easily pay for the panel. Check out [www.CmoreMicro.com](http://www.CmoreMicro.com) to download a free version.

## Built-in project simulator

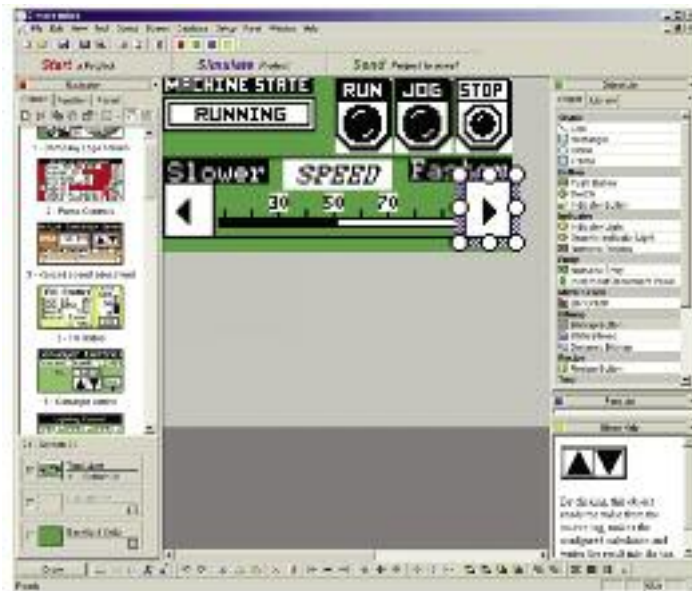
- Runs your project on your PC
- Test all of your screens before downloading
- Time savings pays for the panel
- Version 2.5 or later - Simulate function keys and keypad bezel.

## Built-in user object/screen libraries

Save time by re-using your custom objects and screens.

## Thumbnail project preview pane

Helps keep track of multi-screen projects.



## Scrolling object selection window

Lets you find the object you want fast. Just drag and drop it on the screen.

## PC requirements

Following are the minimum system requirements for running **C-more** Micro Programming Software, EA-MG-PGMSW, on a PC:

- Operating System - Windows® XP Professional Edition Service Pack 2, Windows® 7 (32 or 64 bit) or Windows 8 (32 or 64 bit)
- 150 MB free hard-disk space
- CD-ROM or DVD drive for installing software from the CD, or internet access to download free programming software
- USB port to use with the correct Programming Cable Assembly for project transfer from the programming software to the panel

## Scrolling help window

Gives you helpful information on each object





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# C-more Micro Programming Software

| C-more Micro Panel Objects   |         |  |         |
|--|---------|--|---------|
| Object   | Graphic | Object   | Graphic |
| <p>The <b>Shape</b> objects, just like with drawing tools, allow the user to insert shapes, such as a straight line, circle, or rectangle drawing into a project. When a Shape is inserted into a project, a window opens to allow the user to setup all available parameters for the Line object. Some of the uses for Shape Objects include but are not limited to adding callouts, pointers, or indicators.</p>   |         | <p>The <b>Bitmap Button</b> object offers the ability to use a Bitmap graphic to perform the functions of a Button. This allows users to create their own graphics and implement them within the software project. The Bitmap Button object can be used to activate or deactivate components assigned to a Discrete Tag Name. The C-more Micro display only supports two colors, black and white.</p>  |         |
| <p>The <b>Frame</b> object allows the user to insert a Frame to the project that can be used to Frame other objects. Some of the uses for Frame object include but are not limited to graphically separating objects for different operations that may appear on one screen and emphasizing pushbuttons or other objects that may require more attention by the operator.</p>  |         | <p>The <b>Static Bitmap</b> offers the ability to display a Bitmap graphic on any screen. The Static Bitmap does not change state. Refer to the Dynamic Bitmap Object if you require the graphic object to change state based on a Tag Value in your PLC. The dialog box for a "Static Bitmap" object allows you to "read from disk" and select a graphic file for import. Graphics must be in one of the following formats: .BMP .WMF .JPG .JPEG</p>  |         |
| <p>The <b>Pushbutton</b> object is available from the Button Category of the Object List window. The Pushbutton object is an electronic version of a typical Pushbutton normally found on control panels. The Pushbutton object can be used to activate or deactivate components assigned to a Discrete Tag Name.</p>  |         | <p><b>Recipe</b> objects make it easy to make a large number of tag changes with the push of a single button. Create Recipes with up to 99 entries, and multiple sets of values. Then just push a button to load an entire set of values into the group of recipe tags.</p>  |         |
| <p>The <b>Switch</b> object is an electronic version of a typical Switch that normally can be found on control panels. The Switch object can be used to activate or deactivate components assigned to a Discrete Tag Name.</p>   |         | <p>The <b>Dynamic Bitmap</b> object offers the ability to make an object using two different Bitmap graphics that will display one graphic when the Tag is On and a different graphic when the Tag is Off. Use your own bitmap designs or use some of the bitmaps provided with the software that are located in the User Graphic Library.</p>   |         |
| <p>The <b>Indicator Button</b> object is available from the Button Category of the Object List window. The Indicator Button object is an electronic version of a typical Indicator Button normally found on control panels. The Indicator Button is a combination of a Pushbutton and an Indicator Light. The Indicator Button can be used to activate or deactivate components assigned to a Discrete Tag Name.</p>   |         | <p>The <b>Static Text</b> object is used to display a Frame with a personalized Message. This Frame and Message can be placed on any screen and any location within the screen.</p>  |         |
| <p>The <b>Indicator Light</b> object is an electronic version of a typical Indicator Light normally found on industrial control panels. The Indicator Light can be configured to display the status of the assigned Discrete Tag Name.</p>   |         | <p>The <b>Lookup Text</b> object is used to display a Frame with a personalized Message. This Frame and Message can be placed on any screen and any location within the screen. The object is always displayed like a sign but is configured to display only the message prompted by an assigned Tag Name. Messages are retrieved from a Message Database which is configured by the user with text defined by the user. The Lookup Text Object will scroll text up to 128 characters.</p>   |         |
| <p>The <b>Graphic Indicator Light</b> object is a more enhanced version of the "Indicator Light Object" that allows the user to choose more detailed graphics to display the status of a tag. This object is an electronic version of a typical Indicator Light normally found on industrial control panels. The Indicator Light can be configured to display the status of the assigned Discrete Tag Name.</p>  |         | <p>The <b>Dynamic Text</b> object is used to display text that is retrieved from data stored in a Tag. The Tag Name is assigned to registers in the PLC that contain set character data. The data can be stored in the PLC in ASCII format and may include information such as machine numbers, locations, part numbers, and such. The Message can be configured to be visible (Trigger) when an associated Tag Name is On or Off. This object can be placed on any screen and any location within the screen. The Dynamic Text Object will scroll text up to 40 characters.</p> |         |
| <p>The <b>Numeric Display</b> consists of a frame that displays a real-time numeric value according to the value of data received from an assigned Tag Name. The Numeric Display supports numeric Signed Decimal, Unsigned Decimal, BCD, and Floating Point data types with up to 11 digits, including decimal point. User Defined Alpha Numeric Prefix and Suffix values are also supported.</p>  |         | <p>The <b>Scroll Text</b> object is available from the Text Category of the Object List window. The Scroll Text object is an electronic version of a marquee. It is similar to the Static Text Object. If the text in the object does not fit in the window, it will scroll from right to left across the window. The Scroll Text object does not require a Tag Name assignment. The Scroll Text Object has a maximum character limit of 128 characters.</p>   |         |
| <p>The <b>Numeric Entry</b> object is used to enter a value from your Panel to a PLC Register. This object, when selected, opens a Numeric Keypad that allows the user to enter a new value that will be written to the assigned Tag Name. The Numeric Entry supports numeric Signed Decimal, Unsigned Decimal, BCD, and Floating Point data types with up to 11 digits, including decimal points. User Defined Alpha Numeric Prefix and Suffix values are also supported.</p> |         | <p>The <b>Text Entry</b> object is used to enter an ASCII string. Two entry options allow use of an on-screen keypad or the hardware function keys to enter characters.</p>  |         |
| <p>The <b>Increment/Decrement Value</b> object is used to add or subtract a value by pressing a button on the Panel. Basically the object uses two Tags, one to read a value from and another to write a modified value to. The Increment/Decrement Value supports numeric Signed Decimal, Unsigned Decimal, BCD, and Floating Point data types with up to 11 digits, including decimal points. The Increment and decrement values are also user selectable.</p>               |         | <p>The <b>Screen Change</b> Pushbutton object is available from the Control Category of the Object List window. The Screen Change Pushbutton object is a pushbutton that can be configured to activate another screen in the project. This object may be edited to various colors and sizes. Users can configure the button to activate the Power-Up screen, Forward Screen, Previous Screen, or any one of the project screens.</p>   |         |
| <p>The <b>Real Time Graph</b> object displays the value stored in up to two PLC tags, over a history of up to 24 points each. One point is added at each refresh.</p>  |         | <p>The <b>Screen Selector</b> object is available from the Control Category of the Object List window. This object is an enhanced version of the Screen Change pushbutton in that it offers many more features and defaults with data from screens in the project. This helps to save time by not having to create Screen change buttons for each screen. This object may be edited to various colors and sizes.</p>   |         |
| <p>The <b>Line Graph</b> object displays the values of up to 24 PLC address points. Up to two address arrays can be displayed. The line is drawn in its entirety at each refresh.</p>  |         | <p>The <b>Adjust Display Contrast</b> object is used to allow the operator to adjust the Panel Display Contrast. The default Display setting often works in most applications, however lighting may vary based on the location of each application. In these cases the operator can use this object to make adjustments. The current display setting value will appear on the top of the button and will change as the arrow keys are pressed. This button can be modified to various sizes.</p>   |         |
| <p>The <b>Analog Meter</b> object is used to display the current value of a Tag Name.</p>  |         | <p>The <b>Function</b> object is used to assign the panels function key buttons to a particular action as well as assigning the control of the LED On/Off status. When a button has been assigned as a shift button, the then F1 through F7 will become F8 through F14. The Function Object buttons will activate when the hardware button is pressed or when the object is pressed on the screen. The object size is restricted so that the keys will line up with the hardware function keys on the panel.</p>   |         |
| <p>The <b>Bar Meter</b> object is used to monitor up to two assigned Tag Names continuously. This object has various appearances depending upon the relative value of the tags. The Bar Meter can be used to create digital versions of level, current, and flow meters to name a few samples, or gauges that measure speed and other measurable data.</p>   |         |  |         |

# C-more Micro Programming Connections

## C-more STN Micro Programming Connection

Using the **C-more** Micro Programming Software for project development, STN **C-more** Micro panels can be connected to a PC (personal computer) by using EA-MG-PGM-CBL, the USB-to-RS-232 cable assembly.

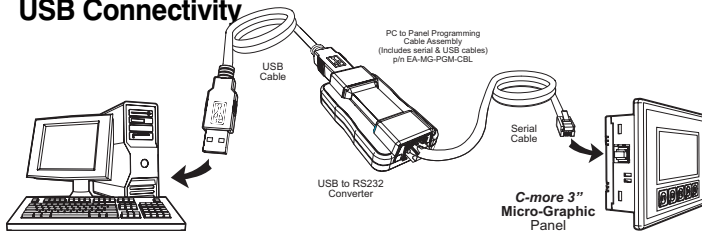
- Connect the USB programming cable (included) from a USB port type A on the PC to the USB type B port on the converter (included). Next connect the serial programming cable from the converter's RJ12 port to the panel's RJ12 serial port. The panel receives power from the USB port of the PC that it is connected to through the USB to RS-232 converter assembly.

### USB to RS-232 Programming Cable Assembly



Part No. EA-MG-PGM-CBL

### USB Connectivity



**NOTE: The TFT panels EA1-T4CL, EA1-T6CL, EA3-T8CL and EA3-T10CL do NOT use the EA-MG-PGM-CBL assembly. The TFT panels use a standard USB A-to-B type cable such as USB-CBL-AB6. See below.**

### USB to RS-232 Converter Specifications

| Part Number   | EA-MG-PGM-CBL  |
|---|--|
| <b>Hardware</b>   |  |
| <b>USB Interface</b>  | USB Specification Rev. 1.1<br>Connector: USB Type B jack to accept USB Type B cable plug                     |
| <b>Serial Interface</b>   | RS-232 (EIA-232-E)<br>Connector: RJ12 phone jack 6p to accept RJ12 cable plug                                |
| <b>Baud Rate</b>  | 115.2 kbps Maximum   |
| <b>Input Voltage</b>  | 5 VDC (Supplied thru serial interface cable.)  |
| <b>Power Consumption</b>  | 50 mA (Does not include power to panel and/or bezel.)  |
| <b>Accessory Cables (included)</b>  |  |
| <b>USB Cable</b>  | USB Type A plug to PC on one end, USB Type B plug to converter on other end, 0.30 m [1 foot] length (* Note) |
| <b>Serial Cable</b>   | RJ12 phone plug connectors on both ends, 2.0 m [6.56 feet] length (* Note)                                   |
| <b>Physical</b>   |  |
| <b>Dimensions</b>   | 2.559" (W) x 1.417" (H) x 0.886" (D)<br>[65.0 mm x 36.0 mm x 22.5 mm]  |
| <b>Weight</b>   | 1.06 oz. [30 g]  |
| <b>Environmental</b>  | See Micro panel specifications at the beginning of this catalog section.                                     |
| <b>* Note: Maximum cable length for either the USB or serial cable should not exceed 2.0 m [6.56 feet] in length.</b> |  |

## C-more TFT Micro Programming Connection

The **C-more** TFT Micro panels EA1-T4CL, EA1-T6CL, EA3-T8CL and EA3-T10CL include an integral USB to serial converter. It is programmed via any USB Type A to Type B cable.

When properly installed on your PC, the device driver will be assigned a communication port number and appear in Windows Device Manager as a serial com port.

### USB cable options for programming EA1-T4CL, EA1-T6CL, EA3-T8CL and EA3-T10CL

| Part Number         | Description   | Price |
|---------------------|---|-------|
| <b>USB-CBL-AB3</b>  | Standard 3-ft. (0.9 m) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any <b>C-more</b> touch panel for setup and programming. (Note: Touch panels require a 24 VDC power source for configuration and operation.)   | \$    |
| <b>USB-CBL-AB6</b>  | Standard 6-ft. (1.8 m) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any <b>C-more</b> touch panel for setup and programming. (Note: Touch panels require a 24 VDC power source for configuration and operation.)   | \$    |
| <b>USB-CBL-AB10</b> | Standard 10-ft (3 meter) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any <b>C-more</b> touch panel for setup and programming. (Note: Touch panels require a 24 VDC power source for configuration and operation.) | \$    |
| <b>USB-CBL-AB15</b> | Standard 15-ft. (4.6 m) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any <b>C-more</b> touch panel for setup and programming. (Note: Touch panels require a 24 VDC power source for configuration and operation.)  | \$    |