# **C-more Micro EA1 Series Selection Guide**

| C-more Micro EA1 Series Panels |               |  |           |
|--------------------------------|---------------|--|-----------|
| Part Number                    |               | Description Price  |           |
| <u>EA1-S3ML</u>                |               | <b>C-more</b> Micro EA1 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, LED backlight, (1) serial port.                     | Retired   |
| <u>EA1-S3ML-N</u>              | Non-<br>Touch | <b>C-more</b> Micro EA1 series HMI, 3in monochrome STN LCD, 128 x 64 pixel, LED backlight, (1) serial port.  | Retired   |
| <u>EA1-S3MLW</u>               |               | <b>C-more</b> Micro EA1 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, high-contrast white LED backlight, (1) serial port. | \$;00bu,: |
| <u>EA1-S3MLW-N</u>             | Non-<br>Touch | <b>C-more</b> Micro EA1 series HMI, 3in monochrome STN LCD, 128 x 64 pixel, high-<br>contrast white LED backlight, (1) serial port.                            | Retired   |

| Part Number | Panel Software / Firmware Version<br>Required |  |
|-------------|---|--|
| EA1-S3ML    | 1.0 or later                                  |  |
| EA1-S3MLW   | 1 E es lates                                  |  |
| EA1-S3MLW-N | - 1.5 or later                                |  |

# C-more Micro EA1 Series Selection Guide

| C-more Micro EA1 Series Panels Programming Software & Programming Cable |  |  |          |
|---|--|--|----------|
| Part Number   |  | Description Price  |          |
| <u>EA-MG-PGMSW</u>  |  | <i>C-more</i> Micro Windows programming software, USB or free download. For use with <i>C-more</i> Micro panels. Requires USB port connection from PC to <i>C-more</i> Micro panel.          | \$-05lh: |
| EA-MG-PGM-CBL   |  | AutomationDirect programming cable assembly, USB A to 6-pin RJ12, 6ft cable length.<br>For use with <i>C-more</i> Micro panels, CLICK CPUs, Do-more H2 series CPUs, and<br>DirectLOGIC CPUs. | \$-04j_: |

| C-more Micro EA1 Series Panel Accessories |  |  |           |
|---|--|--|-----------|
| Part Number                               |  | Description  | Price     |
| EA-COMCON-3                               |  | <i>C-more</i> DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs and <i>C-more</i> CM5 series 4in HMI. | \$-042I:  |
| EA-COMCON-3A                              | A STATE OF THE STA | <i>C-more</i> Micro DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, straight cable entry. For use with <i>C-more</i> Micro EA1 3in with EA1-MG-SP1, EA3 8in and 10in HMIs, <i>C-more</i> EA9 8in, 10in, 12in and 15in and CM5 7in, 10in, 12in, 15in and 22in HMIs.                   | \$0429:   |
| EA-MG-COV-CL                              |  | <b>C-more</b> screen protector, clear, 3in. Package of 5. For use with <b>C-more</b> Micro 3in HMIs.   | \$;;06f,: |
| <u>EA-4-COV2</u>                          |  | <b>C-more</b> Micro screen protector, non-glare, 4in. Package of 3. For use with <b>C-more</b><br>Micro EA1-T4CL 4in HMIs.   | Retired   |
| <u>EA-6-COV2</u>                          |  | C-more screen protector, non-glare, 6in. Package of 3. For use with C-more and<br>C-more Micro 6in HMIs.   | \$06g4:   |



For a list of supported protocols and cabling options refer to the 3-inch *C-more* Micro Protocols and cabling chart starting on page tCMM-12

## 1-800-633-0405 C-more Micro 3-inch EA1 STN Touch Panel

Model EA1-S3ML C-more 3-inch 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 pixel 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.

### Part No. EA1-S3ML



Retired 

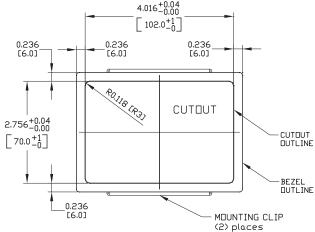
#### Features

- Touch screen display
- Free downloadable programming software
- 128 x 64 pixel 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



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

#### Panel Cutout



| Function             | Available |
|----------------------|-----------|
| Ethernet             | No        |
| USB Programming Port | No        |
| Serial RJ12 Port     | Yes       |

Π

## Dimensions

RS232

3.228

[82.0]

2.716 🛙

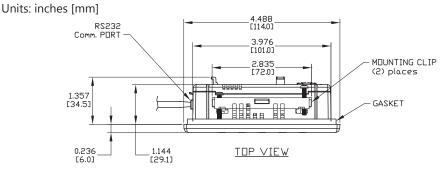
LEFT VIEW

[69.0]

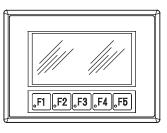
COMM. PORT

3.409

[86.6]

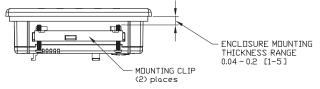


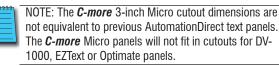
C-more Micro-Graphic Panel



FRONT VIEW

#### Panel Thickness





## 1-800-633-0405 C-more Micro 3-inch EA1 STN Touch Panel

Model EA1-S3MLW C-more 3-inch 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 pixel 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.

### Part No. EA1-S3MLW



## \$;00bu,: c∰us **C € ઊ**

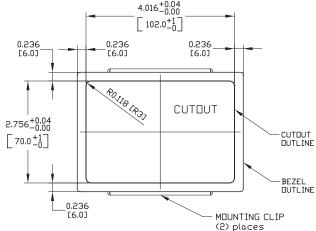
#### Features

- Touch screen display
- Free downloadable programming software
- 128 x 64 pixel 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



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

#### Panel Cutout



| Function             | Available |
|----------------------|-----------|
| Ethernet             | No        |
| USB Programming Port | No        |
| Serial RJ12 Port     | Yes       |

## **Dimensions**

RS232

3.228

[82.0]

3.409

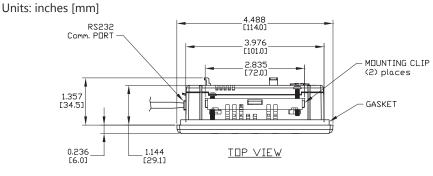
[86.6]

2.716 [69.0]

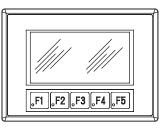
LEFT VIEW

Π

COMM. PORT

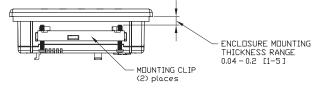


C-more Micro-Graphic Panel



FRONT VIEW

#### Panel Thickness





not equivalent to previous AutomationDirect text panels. The C-more Micro panels will not fit in cutouts for DV-1000, EZText or Optimate panels.

# 1-800-633-0405 For the latest prices, please check AutomationDirect.com.

The *C-more* 3-inch 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 pixel 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.

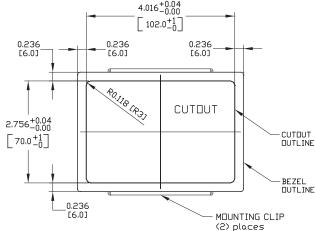
#### **Features**

- Free downloadable programming software
- 128 x 64 pixel 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



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

## Panel Cutout

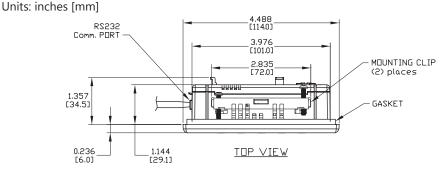


| Function             | Available |
|----------------------|-----------|
| Ethernet             | No        |
| USB Programming Port | No        |
| Serial RJ12 Port     | Yes       |



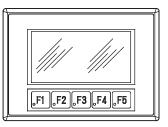
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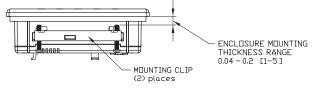
LEFT VIEW

<u>C-more Micro-Graphic Panel</u>



<u>Front view</u>

#### **Panel Thickness**



NOTE: The *C-more* 3-inch 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.

## 1-800-633-0405 C-more Micro 3-inch EA1 STN Non-Touch

Model EA1-S3MLW-N C-more 3-inch 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 pixel 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.

### Part No. EA1-S3MLW-N



Retired

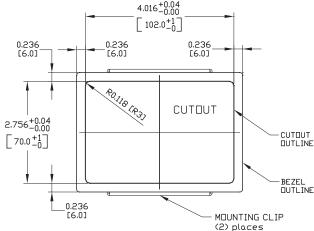
#### **Features**

- · Free downloadable programming software
- 128 x 64 pixel 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

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|-----|-------|
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|     | I — I |

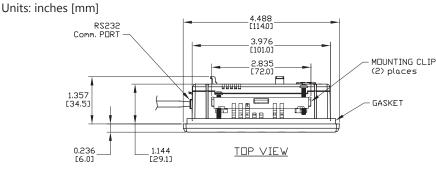
NOTE: Don't forget the optional keypad bezels, DC power adapter and serial port with DC power adapter shown in the Accessories.

## Panel Cutout



| Function             | Available |
|----------------------|-----------|
| Ethernet             | No        |
| USB Programming Port | No        |
| Serial RJ12 Port     | Yes       |

## Dimensions

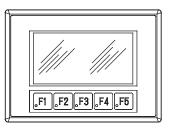


COMM, PORT Γ 3.228 [82.0] 3.409 [86.6] 2.716 [69.0] Π

LEFT VIEW

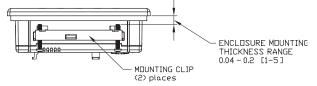
RS232

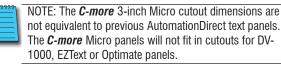
C-more Micro-Graphic Panel



FRONT VIEW

#### Panel Thickness





1-800-633-0405

# **C-more Micro 3-inch EA1 Specifications**

| Model   | 3-inch STN Micro Panel   | 3-inch STN Micro Panel  |  |
|---|--|---|--|
| Specification                                       | Touch Screen   | Non-Touch Screen  |  |
| Part Number   | EA1-S3ML, EA1-S3MLW  | EA1-S3MLW-N   |  |
| Description   | 128 x 64 pixel LCD display, five user defined key  | pad function buttons, and five user defined LED's                                 |  |
| Display   |  |   |  |
| • Туре  | 3.1-inch STN monochrome LCD, graphical characters  |   |  |
| Resolution  | 128 (W) x 6  | 64 (H) pixel  |  |
| • Color   | 2 colors (norr   | nal / inverse)  |  |
| <ul> <li>Viewing Area Size</li> </ul>               | 2.789" (W) x 1.385" (H   | ) [70.8 mm x 35.2 mm]   |  |
| Active Area Size                                    | 2.670" (W) x 1.259" (H   | ) [67.8 mm x 32.0 mm]   |  |
| Contrast  | Adjusted from the panel's buil   | t-in configuration setup menu   |  |
| Viewing Angle                                       | 3, 9 oʻclock axis<br>6 oʻclock axis<br>12 oʻclock axis   | -> 45 degrees   |  |
| Backlight   |  |   |  |
| • Туре  | LE   | D   |  |
| • Color   | 5 user defined colors: EA1-S3ML, - F<br>EA1-S3MLW, EA1-S3  | Red, Green, Amber, Lime, and Yellow<br>MLW-N - White, Pink1, Pink2, Pink3 and Red |  |
| User Replaceable                                    | N  | 0   |  |
| Touch Screen  |  |   |  |
| • Туре  | Analog touch panel, single touch*  | N/A   |  |
| Operation   | 51 gram force [0.5 N] maximum  | N/A   |  |
| • Life  | Minimum of 1,000,000 cycles  | N/A   |  |
| Features  |  |   |  |
| User Memory   | 768  |   |  |
| Number of Screens                                   | Up to 999 – limited by   | project memory usage  |  |
| • Beep (Internal)                                   |  | 95  |  |
| <ul> <li>Keypad Function<br/>Buttons</li> </ul>     | Five user defined function key buttons with the ability to customize the label.<br>Minimum of 500,000 cycles   |   |  |
| <ul> <li>Keypad Function<br/>Button LEDs</li> </ul> | Each function key button includes a red LED that can be user programmed.   |   |  |
| Serial Communications                               | 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<br>Adapter.   |   |  |
| <ul> <li>Expansion Connection</li> </ul>            | Yes – used with optional <u>EA-MG-P1</u> DC Power Adapter (discontinued),<br>and <u>EA-MG-SP1</u> Serial Port with DC Power Adapter (discontinued).  |   |  |
| Screen Objects                                      |  |   |  |
| • Functional Devices                                | Pushbutton, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Ba<br>Graph,<br>Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Scroll Text,<br>Screen Change Pushbutton, Screen Selector, Adjust Contrast, Function, Key Configuration Object, Realtime Graph, Line Graph<br>Analog Meter |   |  |
| Static Shapes                                       | Lines, Rectangles,   |   |  |
| Displayable Fonts                                   | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16  |   |  |
|   | pond to a single touch. If it is touched at multiple points at the   |   |  |
| C-more 3-inch Micro panel specifications c          |  |   |  |

1-800-633-0405

# **C-more Micro 3-inch EA1 Specifications**

|   |  | -  |
|---|--|--|
| Model<br>Specification  | 3-inch STN Micro Panel<br>Touch Screen   | 3-inch STN Micro Panel<br>Non-Touch Screen                               |
| Part Number   | EA1-S3ML, EA1-S3MLW  | EA1-S3MLW-N  |
| Electrical  |  |  |
| • Input Voltage Range   | 5.0 VDC (4.7   | 5 – 5.25 VDC)  |
| • Input Power   | Supplied through the panel's RJ12 serial communications port connection when used with any AutomationDirect PLC having RJ12 communication port.  |  |
| • Power Consumption   | 1.05W (220m/   | A @ 4.75 VDC)  |
| • Recommended Fuse  |  | 50 mA, 250 VAC, ADC p/n AGC-25<br>to a PLC or PC with recommended cable. |
| • Maximum Inrush<br>Current                                       | 1 A for  | 500 µs   |
| <ul> <li>Acceptable External<br/>Power Drop Duration</li> </ul>   | Maxim  | um 1ms   |
| Environmental*  |  |  |
| • Operating Temperature   | 0 to 50 °C (32 to 122 °F) Maximum surrounding air temperature rating: 50 °C  |  |
| • Storage Temperature   | –20 to +60 °C (–4 to +140 °F)  |  |
| • Humidity  | 5–95% RH (non-condensing)  |  |
| • Environmental Air   | For use in Pollution Degree 2 Environment  |  |
| • Vibration   | 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%),<br>10 sweep cycles per axis on each of 3 mutually perpendicular axes  |  |
| • Shock   | IEC60068-2-27 (Test Ea), 15 G peak, 11ms duration, three shocks in each direction per axis,<br>on 3 mutually perpendicular axes (total of 18 shocks)   |  |
| • Noise Immunity  | NEMA ICS3-304(EN61131-2)<br>RFI, (145MHz, 440Mhz 10W @ 10cm)<br>Impulse 1000V @ 1μS pulse<br>EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Surge)<br>N61000-4-6 (Conducted), EN61000-4-8 (Power frequency magnetic field immunity) |  |
| • Enclosure   | For use on a flat surface of Type 1, 4X enclosure (Indoor use only)  |  |
| • Agency Approvals  | CE (EN61131-2), UL508, CUL Canadian C22.2 No. 142-M95, UL File E157382, CSA File 234884  |  |
| Physical  |  |  |
| • Dimensions  | 4.488" (W) x 3.228" (H) x 1.593" (D  | )) [114.0 mm x 82.0 mm x 40.5 mm]  |
| • Enclosure Mounting<br>Thickness Range                           | 0.04" – 0.2" [1 – 5 mm]  |  |
| • Mounting Clip Screw<br>Torque Range                             | 21 – 28 oz∙in [  | 0.15 – 0.2 N·m]  |
| <ul> <li>Depth from bezel rear<br/>with options Module</li> </ul> | 2.295" [5  | 58.3 mm]   |
| • Weight  | 5.82 oz.   | . (165 g)  |
|   |  |  |



NOTE: The environmental specifications for the panels shown above are also applicable for the *C-more* 3" Micro accessories shown later in this section of the catalog.

| Supported Protocols / Drivers             |
|---|
| Serial - Panel port1                      |
| AutomationDirect Productivity Series      |
| AutomationDirect CLICK                    |
| AutomationDirect Do-more / BRX*           |
| AutomationDirect K-sequence               |
| AutomationDirect DirectNET                |
| AutomationDirect Modbus                   |
| Modicon Modbus RTU                        |
| Entivity Modbus RTU                       |
| Note: * <u>BX-P-SER2-RJ12</u> is required |



For a list of supported protocols and cabling options refer to the 3-inch *C-more* Micro Protocols and cabling chart starting on pagepage tCMM-12

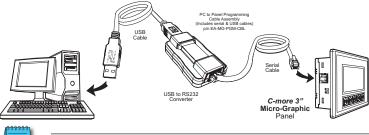
## C-more Micro 3-inch EA1 Series Programming Connections C-more STN Micro Programming Connection

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 <u>EA-MG-PGM-CBL</u>, 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** Connectivity



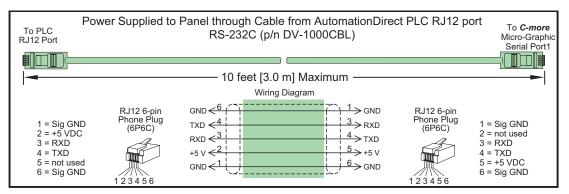
USB to RS-232 Programming Cable Assembly



Part No. <u>EA-MG-PGM-CBL</u> \$-04j\_:

NOTE: <u>EA1-T4CL</u> does NOT use the <u>EA-MG-PGM-CBL</u> assembly. <u>EA1-T4CL</u> panel uses a standard USB A-to-B type cable such as <u>USB-CBL-AB6</u>.

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

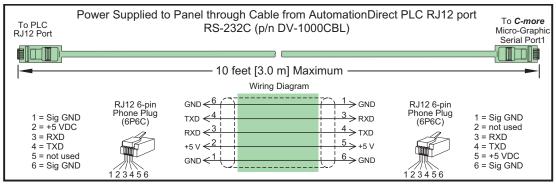


# *C-more* Micro 3-inch EA1 Power Connection Wiring

#### Providing power to the touch panel

- The *C-more* 3-inch Micro panel is powered during programming from the PC through the USB to RS-232 Programming Cable Assembly, <u>EA-MG-PGM-CBL</u>.
- During operation, the *C-more* Micro panel can be powered from most AutomationDirect PLC's RJ12 serial communications port by using the <u>DV-1000CBL</u> communications cable.

#### 3-inch Panel powered from AutomationDirect PLC via communications cable



#### For the latest prices, please check AutomationDirect.com.

## 1-800-633-0405 **C-more Micro 3-inch EA1 PLC Connections**

## **Cabling requirements**

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

- <u>DV-1000CBL</u> connects to Productivity Series, Do-more/BRX\* CLICK, DL05, DL06, DL105, DL205, D3-350 and D4-450 phone jack.
- D4-1000CBL connects to all DL405 CPU 15-pin ports.

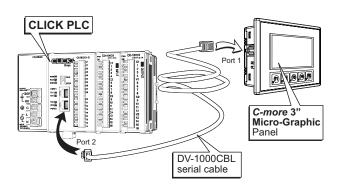
A maximum cable length of 10 feet between the *C-more* Micro panel and the PLC is recommended when powering the panel from the PLC.

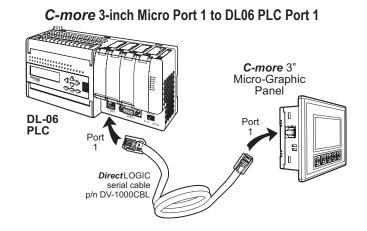
See the Communication Protocols & Cabling Charts in this catalog section for details on the selection of various controllers, protocols, and connectivity.

## **Drivers for your Controller**

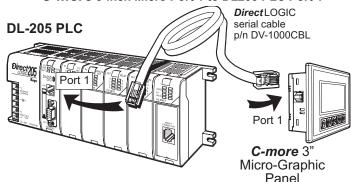
- AutomationDirect Productivity Series
- AutomationDirect Do-more/BRX\*
- AutomationDirect CLICK (Modbus)
- DirectLOGIC K-sequence, DirectLOGIC DirectNET, DirectLOGIC Modbus (Koyo Addressing)
- Modbus RTU
- Allen Bradley DF1 Full Duplex, Allen Bradley DF1 Half Duplex, Allen Bradley PLC5 DF1, AB DH485
- 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
  - \* BX-P-SER2-RJ12 is required

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









# **C-more Micro 3-inch EA1 Communication Protocols & Cabling Chart**

|   | PLC          |  | C-more 3-inch Mid   | cro Panel.  |
|---|--------------|--|---|---|
| Family                                  | CPU          | Port & Type  | Panel to PLC Cabling Components Required for<br>PLC Port Pc<br>Powered with 5 VDC from the conr | owered  |
|   |              |  | Using panel's RJ1   | •   |
|   |              |  | Protocol(s)<br>Supported  | Components &<br>Network Type                              |
|   | all versions | Port 1<br>RJ12 - 6 pin                                 |   | DV-1000CBL<br>RS-232                                      |
| CLICK                                   |              | Port 2<br>RJ12 - 6 pin                                 | AutomationDirect Modbus (CLICK)   | K9-232  |
|   | Analog CPU's | Port 3<br>Terminal block - 3-pin                       |   | N/A   |
|   |              | RS-232<br>RJ12 - 6 pin                                 | AutomationDirect  | DV-1000CBL<br>RS-232                                      |
| Productivity Series                     | all versions | RS-485 Port<br>Term block 3-pin                        | Productivity Serial   | N/A   |
| Do-more                                 | all versions | Port 2<br>RJ12 - 6 pin                                 | AutomationDirect<br>Do-more Serial  | DV-1000CBL<br>RS-232                                      |
| BRX                                     | all versions | RS-232<br>POM module<br>BX-P-SER2-RJ12                 | AutomationDirect  | DV-1000CBL<br>RS-232                                      |
|   |              | RS-485 Port<br>Term block 3-pin                        | Do-more Serial  | N/A   |
| DirectLOGIC<br>DL05<br>see D0-DCM under | all versions | Port 1<br>RJ12 - 6 pin<br>Port 2                       | K-sequence,<br><i>Direct</i> NET,   | DV-1000CBL<br>RS-232                                      |
| DL06)                                   |              | RJ12 - 6 pin   | Modbus RTU  |   |
|   |              | Port 1<br>RJ12 - 6 pin                                 | K-sequence,   | DV-1000CBL<br>RS-232                                      |
| DirectLOGIC                             | all versions | Port 2<br>DB15HD<br>(female)                           | <i>Direct</i> NET,<br>Modbus RTU  | DV-1000CBL<br>+ FA-15HD<br>RS-232                         |
| DL06                                    | D0-DCM       | Port 1<br>RJ12 - 6 pin<br>Port 2<br>DB15HD<br>(female) | K-sequence,<br><i>Direct</i> NET,<br>Modbus RTU   | DV-1000CBL<br>RS-232<br>DV-1000CBL<br>+ FA-15HD<br>RS-232 |
| DirectLOGIC<br>DL105                    | all versions | Port 1<br>RJ12 - 6 pin                                 | K-sequence  | DV-1000CBL<br>RS-232                                      |

# *C-more* Micro 3-inch EA1 Communication Protocols & Cabling Chart (cont'd)

|                      | PLC                   |  | C-more 3-inch   | Micro Panel.  |
|----------------------|-----------------------|--|---|---|
| Family               | CPU                   | Port & Type  | Panel to PLC Cabling Components Required<br>PLC Port<br>Powered with 5 VDC from the | Powered   |
|                      |                       |  | Using panel's   |   |
|                      |                       |  | Protocol(s)<br>Supported  | Components &<br>Network Type                              |
|                      | D2-230                | Port 1<br>RJ12 - 6 pin                                 | K-sequence  | DV-1000CBL<br>RS-232                                      |
|                      | D2-240                | Port 1<br>RJ12 - 6 pin                                 | K-sequence  | DV-1000CBL  |
|                      | 02 240                | Port 2<br>RJ12 - 6 pin                                 | K-sequence,<br><i>Direct</i> NET  | RS-232  |
|                      | D0.050.4              | Port 1<br>RJ12 - 6 pin                                 | K-sequence,   | DV-1000CBL<br>RS-232                                      |
| DirectLOGIC          | D2-250-1              | Port 2<br>DB15HD<br>(female)                           | <i>Direct</i> NET,<br>Modbus RTU  | DV-1000CBL<br>+ FA-15HD<br>RS-232                         |
| DELUU                | DL205                 | Port 1<br>RJ12 - 6 pin<br>Port 2<br>DB15HD<br>(female) | K-sequence,<br><i>Direct</i> NET,<br>Modbus RTU                                     | DV-1000CBL<br>RS-232<br>DV-1000CBL<br>+ FA-15HD<br>RS-232 |
|                      | D2-DCM                | Port 1<br>DB 25 pin<br>(female)                        | K-sequence,<br><i>Direct</i> NET,<br>Modbus RTU                                     | See Note<br>RS-232  |
|                      | WINPLC                | Port 1<br>RJ12 - 6 pin                                 | Modbus RTU  | DV-1000CBL<br>RS-232                                      |
|                      | D3-330 or             | D3-232-DCU<br>DB 25 pin<br>(female)                    | N/A   |   |
|                      | D3-340                | D3-422-DCU<br>DB 25 pin<br>(female)                    | N/  | A   |
|                      | D3-340                | Port 1<br>RJ11 - 4 pin                                 | N/  | A   |
| DirectLOGIC<br>DL305 |                       | Port 2<br>RJ11 - 4 pin                                 | N/A   |   |
|                      | D3 350                | Port 1<br>RJ12 - 6 pin                                 | K-sequence,<br><b>Direct</b> NET  | DV-1000CBL<br>RS-232                                      |
| D                    | D3-350                | Port 2<br>DB 25 pin<br>(female)                        | N/  | A   |
|                      | D3-DCM<br>D3-350 only | Port 1<br>DB 25 pin<br>(female)                        | K-sequence,<br><i>Direct</i> NET,<br>Modbus RTU                                     | See Note<br>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. PLC Compatibility & Connection Chart continued on next page.

# *C-more* Micro 3-inch EA1 Communication Protocols & Cabling Chart (cont'd)

|             | PLC                             |                                  | C-more 3-inc                                    | h Micro Panel.                                       |
|-------------|---------------------------------|----------------------------------|---|--|
|             |                                 | Port & Type                      | Panel to PLC Cabling Components Requir          | ed for Specific Port and Protocol being used.        |
| Family      | CPU                             |                                  |   | t Powered<br>e connected PLC's comm. port.           |
|             |                                 |                                  | Using panel                                     | 's RJ12 port 1                                       |
|             |                                 |                                  | Protocol(s)<br>Supported                        | Components &<br>Network Type                         |
|             | D4-430                          | Port 0<br>DB 15 pin<br>(female)  | K-sequence                                      | D4-1000CBL<br>or DV-1000CBL<br>& FA-CABKIT<br>RS-232 |
|             | Port 1<br>DB 25 pin<br>(female) | N/A                              |   |  |
|             | D4-440                          | Port 0<br>DB 15 pin<br>(female)  | K-sequence                                      | D4-1000CBL<br>or DV-1000CBL<br>& FA-CABKIT<br>RS-232 |
| DirectLOGIC |                                 | Port 1<br>DB 25 pin<br>(female)  | ١   | N/A  |
| DL405       |                                 | Port 0<br>DB 15 pin<br>(female)  | K-sequence                                      | D4-1000CBL<br>or DV-1000CBL<br>& FA-CABKIT<br>RS-232 |
|             | D4-450 /<br>D4-454              | Port 1<br>DB 25 pin<br>(female)  | ١   | N/A  |
|             |                                 | Port 2<br>RJ12 - 6 pin<br>Port 3 | K-sequence,<br><i>Direct</i> NET                | DV-1000CBL<br>RS-232                                 |
|             |                                 | DB 25 pin<br>(female)            | 1   | N/A  |
| D           | D4-DCM                          | Port 1<br>DB 25 pin<br>(female)  | K-sequence,<br><b>Direct</b> NET,<br>Modbus RTU | See Note<br>RS-232                                   |
| SOLO        | N/A                             | Data +/-<br>terminals            | ١   | N/A  |
| GS Drives   | N/A                             | RS-485 Interface                 | ١   | N/A  |

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. PLC Compatibility & Connection Chart continued on next page.

# *C-more* Micro 3-inch EA1 Communication Protocols & Cabling Chart (cont'd)

|                               | PLC  |  | C-more 3-inc  | ch Micro Panel.   |
|-------------------------------|--|--|---|---|
|                               |  |  |   | ed for Specific Port and Protocol being used.   |
| Family                        | CPU  | Port & Type  | PLC Port<br>Powered with 5 VDC from the<br>Using panel<br>Protocol(s) | t Powered<br>e connected PLC's comm. port.<br>I's RJ12 port 1<br>Components &<br>Network Type |
| Allen-Bradley<br>MicroLogix   | 1000, 1100,<br>1200, 1400, 1500  | 8-pin<br>mini-din port<br>RJ45 8-pin<br>phone plug | Supported   |   |
| Allen-Bradley                 | 5/03, 5/04,<br>5/05  | 9-pin<br>D-sub port                                |   |   |
| SLC500                        | 5/01, 5/02,<br>5/03  | RJ45 8-pin<br>phone plug                           |   |   |
| Allen-Bradley<br>ControlLogix | all  | 9-pin<br>D-sub port                                |   |   |
| Allen-Bradley<br>CompactLogix | all  | 9-pin<br>D-sub port                                |   |   |
| Allen-Bradley<br>FlexLogix    | all  | 9-pin<br>D-sub port                                |   |   |
| Allen-Bradley                 | all  | 25-pin<br>D-sub port                               |   |   |
| PLC5                          |  | RJ45 8-pin<br>phone plug                           |   |   |
| 90/30                         | 90/30  | 15-pin<br>D-sub port                               |   |   |
| GE                            | Micro 90,  | RJ45<br>Port 1                                     |   |   |
|                               | VersaMax<br>Micro  | 15-pin<br>D-sub port<br>Port 2                     | ١   | N/A   |
|                               | Melsec   | 25-pin<br>D-sub port                               |   |   |
| Mitsubishi                    | FX Series  | 8-pin<br>mini-din port                             |   |   |
| misubisiii                    | Q / QnA  | 9-pin<br>D-sub port                                |   |   |
|                               |  | 6-pin<br>mini-din port                             |   |   |
|                               | C200 (Adapter),<br>C500  | 25-pin<br>D-sub port                               |   |   |
| Omron                         | CJ1, CS1,<br>CQM1,<br>CPM1,<br>CPM2,<br>C200   | 9-pin<br>D-sub port                                | -   |   |
| Modicon                       | C200<br>984 CPU,<br>Quantum<br>113 CPU,<br>AEG<br>Modicon<br>Micro Series<br>110 CPU | varies   |   |   |
| Siemens                       | S7-200<br>CPU  | 9-pin<br>D-sub port<br>0 or 1                      |   |   |

## 1-800-633-0405 **C-more Micro 3-inch EA1 Communication Cables and Cable Kits**

| Cable<br>Description   | Cable<br>Part Number | Price    |
|--|----------------------|----------|
| Cables for direct connect to panel's serial Port1<br>(Panel powered from PLC's serial port.)   |                      |          |
| AutomationDirect communication cable, 6-pin RJ12 to 6-pin RJ12, 2m/6.6ft cable length. For use with DV-1000 or <i>C-more</i> Micro panels and AutomationDirect PLCs with an RJ12 port. | <u>DV-1000CBL</u>    | \$04lj:  |
| AutomationDirect communication cable, 6-pin RJ12 to 15-pin male D-sub, shielded, 2m/6.6ft cable length. For use with DV-1000 or <b>C-more</b> Micro panels and any DL405 CPU.          | <u>D4-1000CBL</u>    | \$04li:  |
| <i>Direct</i> LOGIC DL06 connector, 15-pin D-sub HD15 male to RJ12 female. For use with DL06 CPUs and DL205 D2-250, D2-250-1, D2-260 and D2-262 CPUs.                                  | <u>FA-15HD</u>       | \$;08zf: |
| <i>Direct</i> LOGIC universal cable kit, for use with all DirectLOGIC PLCs with RS-232 ports.  | <u>FA-CABKIT</u>     | \$08za:  |



**FA-CABKIT** 

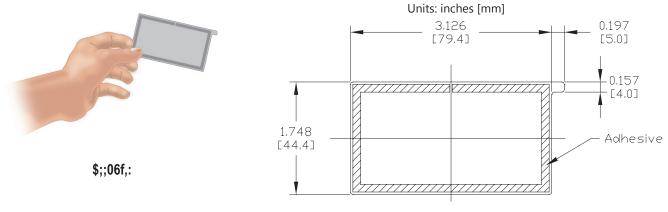
## 1-800-633-0405 **C-more Micro 3-inch EA1 Panel Accessories**

### **Clear Screen Overlay**

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

#### Part No. EA-MG-COV-CL





#### 1-800-633-0405

## **C-more Micro 3-inch EA1 Replacement Parts**

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

#### Replacement parts at a glance:

| Part Number           | Description   | Price    |
|-----------------------|---|----------|
| <u>EA-MG-S3ML-BRK</u> | C-more Micro panel mounting brackets, replacement. Package of 2. For use with C-more Micro 3in and EA3-<br>T4CL HMIs.   | \$05h7:  |
| EA-MG-BZ1-BRK         | C-more Micro panel mounting brackets, replacement. Package of 2. For use with C-more Micro bezel EA-MG-<br>BZ1.   | Retired  |
| EA-MG-BZ2-BRK         | C-more Micro panel mounting brackets, replacement. Package of 8. For use with C-more Micro 4in and 6in panels, all 6in bezels, and 3in bezel EA-MG-BZ2.                           | \$05h6:  |
| EA-MG-DC-CON          | C-more Micro DC 3-terminal power connector, replacement. Package of 5. For use with all C-more Micro 4in,<br>6in, 8in and 10in panels, and power adapters EA-MG-P1 and EA-MG-SP1. | \$04c3:  |
| EA-MG-S3ML-GSK        | C-more Micro panel mounting gasket, replacement. For use with C-more Micro EA1 series 3in HMIs.   | \$;06h]: |
| EA-MG-S3ML-FKL        | C-more Micro function key label insert, replacement. Package of 10. For use with C-more Micro 3in HMIs. (5) blank labels and (5) landscape F1-F5 label included.                  | \$04cy:  |

Panel Mounting Clips Part No. <u>EA-MG-S3ML-BRK</u>



(pk of 2)

#### Keypad Bezel 2 Mounting Clips Part No. <u>EA-MG-BZ2-BRK</u>



(pk of 8)

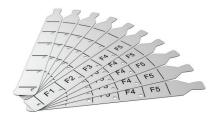
DC Power Connector Part No. EA-MG-DC-CON



3-inch Panel Gasket Part No. <u>EA-MG-S3ML-GSK</u>



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



(pk of 10 - 5 blank, 5 F1-F5)

## 1-800-633-0405 *C-more* Micro 4-inch EA1 Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost EA1-T4CL components.

### Replacement parts at a glance:

| Part Number          | Description  | Price   |
|----------------------|--|---------|
| <u>EA-MG-BZ2-BRK</u> | C-more Micro panel mounting brackets, replacement. Package of 8. For use with C-more Micro 4in and 6in panels, all 6in bezels, and 3in bezel EA-MG-BZ2.                                | \$05h6: |
| EA-MG-DC-CON         | C-more Micro DC 3-terminal power connector, replacement. Package of 5. For use with all C-more Micro 4in, 6in, 8in and 10in panels, and power adapters EA-MG-P1 and EA-MG-SP1.         | \$04c3: |
| <u>EA-MG4-FKL</u>    | C-more Micro function key label insert, replacement. Package of 4. For use with C-more Micro EA1-T4CL 4in HMIs. (3) blank label inserts and (1) landscape F1-F5 label insert included. | Retired |

#### Panel Mounting Clips Part No. <u>EA-MG-BZ2-BRK</u>



(pk of 8)

#### DC Power Connector Part No. <u>EA-MG-DC-CON</u>



(pk of 5)

## 1-800-633-0405 **C-more** Micro EA3 Series Selection Guide

|                    | C-more Micro EA3 Series Panels |   |           |  |
|--------------------|--------------------------------|---|-----------|--|
| Part Number        |                                | Description   | Price     |  |
| <u>EA3-S3ML-RN</u> |                                | <b>C-more</b> Micro EA3 series HMI, 3in monochrome STN LCD, 128 x 64 pixel, LED backlight, (1) serial port.   | \$01ocp:  |  |
| <u>EA3-S3ML-R</u>  |                                | <b>C-more</b> Micro EA3 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, LED backlight, (1) serial port.  | \$01oco:  |  |
| <u>EA3-S3ML</u>    |                                | <i>C-more</i> Micro EA3 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, LED backlight, (2) serial, (1) Ethernet and (1) microB-USB ports.                | \$01n43:  |  |
| <u>EA3-T4CL</u>    |                                | <b>C-more</b> Micro EA3 series touch screen HMI, 4in color TFT LCD, analog resistive, widescreen, 480 x 272 pixel, WQVGA, LED backlight, (2) serial, (1) Ethernet and (1) microB-USB ports. | \$01n44:  |  |
| <u>EA3-T6CL</u>    |                                | <i>C-more</i> Micro EA3 series touch screen HMI, 6in color TFT LCD, analog resistive, 320 x 240 pixel, QVGA, LED backlight, (2) serial and (1) USB B ports.                                 | \$-010di: |  |

| Part Number | Panel Software / Firmware Version<br>Required |
|-------------|---|
| EA3-S3ML-RN | 4.30 or later                                 |
| EA3-S3ML-R  | 4.30 or later                                 |
| EA3-S3ML    | 4.20 or later                                 |
| EA3-T4CL    | 4.20 or later                                 |
| EA3-T6CL    | 3.6 or later                                  |

1-800-633-0405

# **C-more** Micro EA3 Series Selection Guide

|                       | C-more Micro Programming Software |  |          |  |
|-----------------------|-----------------------------------|--|----------|--|
| Part Number           |                                   | Description  | Price    |  |
| <u>EA-MG-PGMSW</u>    |                                   | <b>C-more</b> Micro Windows programming software, USB or free download. For use with <b>C-more</b> Micro panels. Requires USB port connection from PC to <b>C-more</b> Micro panel.    | \$-05lh: |  |
| EA-MG-PGM-CBL         |                                   | AutomationDirect programming cable assembly, USB A to 6-pin RJ12, 6ft cable length. For use with <i>C-more</i> Micro panels, CLICK CPUs, Do-more H2 series CPUs, and DirectLOGIC CPUs. | \$-04j_: |  |
| <u>USB-CBL-AB3</u>    |                                   | AutomationDirect programming cable, USB A to USB B, 3ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.                   | \$04kd:  |  |
| USB-CBL-AB6           |                                   | AutomationDirect programming cable, USB A to USB B, 6ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.                   | \$04ke:  |  |
| USB-CBL-AB10          |                                   | AutomationDirect programming cable, USB A to USB B, 10ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.                  | \$04kb:  |  |
| USB-CBL-AB15          |                                   | AutomationDirect programming cable, USB A to USB B, 15ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.                  | \$04kc:  |  |
| <u>USB-CBL-AMICB6</u> | Q                                 | AutomationDirect programming cable, USB A to microB-USB, 6ft cable length. For use with<br>Productivity1000 and Productivity2000 CPUs and most USB devices.                            | \$-?ui:  |  |

| C-more Micro EA3 Series Panel Accessories |  |  |           |
|---|--|--|-----------|
| Part Number                               |  | Description  | Price     |
| <u>EA-ECOM</u>                            |  | <b>C-more</b> communication expansion module, (1) RJ45 10/100 Mbps Ethernet port. For use with <b>C-more</b> Micro EA3 series 6in, 8in and 10in panels and all <b>C-more</b> HMIs except CM5 series and -R models.   | \$010##:  |
| EA-ADPTR-4                                |  | <i>C-more</i> DSUB port adapter, 15-pin male to 15-pin female, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs.   | \$042k:   |
| EA-COMCON-3                               |  | <i>C-more</i> DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs and <i>C-more</i> CM5 series 4in HMI. | \$-0421:  |
| EA-COMCON-3A                              | A CONTRACTOR OF A CONTRACTOR O | <i>C-more</i> Micro DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, straight cable entry. For use with <i>C-more</i> Micro EA1 3in with EA1-MG-SP1, EA3 8in and 10in HMIs, <i>C-more</i> EA9 8in, 10in, 12in and 15in and CM5 7in, 10in, 12in, 15in and 22in HMIs.                   | \$0429:   |
| EA-MG-COV-CL                              |  | C-more screen protector, clear, 3in. Package of 5. For use with C-more Micro 3in HMIs.   | \$;;06f,: |
| EA-4-COV3                                 |  | C-more Micro screen protector, non-glare, 4in. Package of 3. For use with C-more Micro<br>EA3-T4CL 4in HMIs.   | \$1n46:   |
| EA-6-COV2                                 |  | C-more screen protector, non-glare, 6in. Package of 3. For use with C-more and C-more Micro 6in HMIs.  | \$06g4:   |
| EA-8-COV2                                 |  | C-more screen protector, non-glare, 8in. Package of 3. For use with C-more and C-more Micro 8in HMIs.  | \$06g5:   |
| EA-10-COV2                                |  | C-more Micro screen protector, non-glare, 10in. Package of 3. For use with C-more EA9-<br>T10CL and C-more Micro EA3-T10CL HMIs.   | \$06g1:   |

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**Operator Interface** 

tCMM-21

# *C-more* Micro EA3-S3ML-RN and EA3-S3ML-R Panels Overview

EA3-S3ML-RN

EA3-S3ML-R

|                    | C-more Micro EA3 Series Panels |   |          |  |
|--------------------|--------------------------------|---|----------|--|
| Part Number        |                                | Description   | Price    |  |
| <u>EA3-S3ML-RN</u> |                                | <b>C-more</b> Micro EA3 series HMI, 3in monochrome STN LCD, 128 x 64 pixel, LED backlight, (1) serial port.                         | \$01ocp: |  |
| <u>EA3-S3ML-R</u>  |                                | C-more Micro EA3 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, LED backlight, (1) serial port. | \$01oco: |  |
|                    | Part Number                    | Panel Software / Firmware Version Required  |          |  |

|                    | C-more Micro Programming Software |  |          |  |
|--------------------|-----------------------------------|--|----------|--|
| Part Number        |                                   | Description  | Price    |  |
| <u>EA-MG-PGMSW</u> |                                   | <b>C-more</b> Micro Windows programming software, USB or free download. For use with <b>C-more</b> Micro panels. Requires USB port connection from PC to <b>C-more</b> Micro panel.          | \$-05lh: |  |
| EA-MG-PGM-CBL      |                                   | AutomationDirect programming cable assembly, USB A to 6-pin RJ12, 6ft cable length.<br>For use with <i>C-more</i> Micro panels, CLICK CPUs, Do-more H2 series CPUs, and<br>DirectLOGIC CPUs. | \$-04j_: |  |

4.30 or later

| C-more Micro EA3 Series Panel Accessories |  |  |           |
|---|--|--|-----------|
| Part Number                               |  | Decription   | Price     |
| EA-MG-COV-CL                              |  | <b>C-more</b> screen protector, clear, 3in. Package of 5. For use with <b>C-more</b> Micro 3in HMIs. | \$;;06f,: |

## 1-800-633-0405 C-more Micro 3-inch EA3 Non-Touch Panel

**Dimensions** 

Model EA3-S3ML-RN C-more 3-inch Micro non-touch panel has a 3.1-inch STN LCD monochrome display and twelve selectable LED-driven backlight colors. It features a 128 x 64 pixel display, and five user-defined function keys each with a user-defined red LED indicator. This *C-more* Micro panel is powered through the RJ-12 serial communications port of most AutomationDirect PLC's or from the USB port of a PC using the EA-MG-PGM-CBL programming cable assembly. This panel supports only AutomationDirect PLC protocols and Modbus RTU (master only). (For other controllers consider the EA3-S3ML). The panel is NEMA 1 as shipped but is NEMA 4/4X indoor, when installed correctly with the optional gasket EA-MG-S3ML-GSK (sold separately).



NOTE: EA3-S3ML-RN is NEMA 1 compliant. Add optional gasket EA-MG-S3ML-GSK for NEMA 4/4X compliance (sold separately).

#### **Features**

- · Free downloadable programming software
- 128 x 64 pixel 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
- 12-Color LED backlight for longer lifetime; Red, Green, Amber, Yellow, Lime, Pink 1, Pink 2, Pink 3, Emerald 1, Emerald 2, Emerald 3 and White
- Optional clear screen overlay
- 1MB memory
- 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 1 compliant: NEMA 4/4X, IP65 compliant when mounted correctly with optional gasket (EA-MG-S3ML-GSK sold separately), indoor use only
- UL, cUL & CE agency approvals
- · 2-year warranty from date of purchase

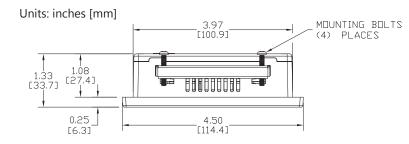
#### Panel Cutout 4.02 -0.00 [102,0] +1 0.24 [6.2] CUTOUT DUTLINE R0.12 [R3.0] +0.04 2.76 -0.00 [70,0]+1 \_n BEZEL CUTOUT DUTLINE 0.24 [6.2]

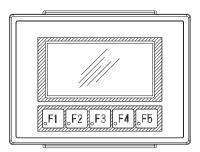
## Part No. EA3-S3ML-RN

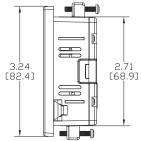


#### \$01ocp:

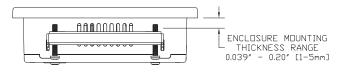
| Function             | Available |
|----------------------|-----------|
| Ethernet             | No        |
| USB Programming Port | No        |
| Serial RJ12 Port     | Yes       |
| Serial DB15 Port     | No        |







## **Panel Thickness**



## 1-800-633-0405 C-more Micro 3-inch EA3 Touch Panel

Dimensions

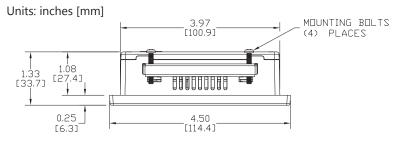
Model EA3-S3ML-R C-more 3-inch Micro touch panel has a 3.1-inch STN LCD monochrome display and twelve selectable LED-driven backlight colors. It features a 128 x 64 pixel display, and five user-defined function keys each with a user-defined red LED indicator. This *C-more* Micro panel is powered through the RJ-12 serial communications port of most AutomationDirect PLC's or from the USB port of a PC using the EA-MG-PGM-CBL programming cable assembly. This panel supports only AutomationDirect PLC protocols and Modbus RTU (master only). (For other controllers consider the EA3-S3ML). The panel is NEMA 4/4X indoor when installed correctly.

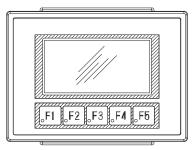
## Part No. EA3-S3ML-R

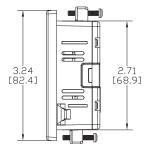


## \$01oco:

| Function             | Available |
|----------------------|-----------|
| Ethernet             | No        |
| USB Programming Port | No        |
| Serial RJ12 Port     | Yes       |
| Serial DB15 Port     | No        |

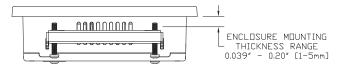






#### Panel Cutout +0.04 4.02 -0.00 [102.0] +1 0.24 [6.2] CUTOUT DUTLINE R0.12 [R3.0] +0.04 76 -0.00 0.0]+1 - ೧ BEZEL CUTOUT DUTLINE 0.24 [6.2]

#### **Panel Thickness**



#### • Free downloadable programming software • 128 x 64 pixel 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.
- 12-Color LED backlight for longer lifetime; Red, Green, Amber, Yellow, Lime, Pink 1, Pink 2, Pink 3, Emerald 1, Emerald 2, Emerald 3 and White
- Optional clear screen overlay
- 1MB memory

**Features** 

• Touch screen display

- · 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

# *C-more* Micro <u>EA3-S3ML-RN</u> and <u>EA3-S3ML-R</u> Panels Specifications

| E  | A3-S3ML-RN and EA3-S3ML-R Speci   | fications   |  |  |
|--|---|---|--|--|
| Part Number:   | EA3-S3ML-RN   | <u>EA3-S3ML-R</u>   |  |  |
| Description:   | 128 x 64 pixel LCD display<br>Five user defined keypad function buttons with five user defined LED indicators |   |  |  |
| Display:   |   |   |  |  |
| • Туре   | 3.1" STN Monochrome<br>with LED Backlight   |   |  |  |
| Resolution   | 128 (W) x 6   | 64 (H) pixel  |  |  |
| • Color  | 2 colors (norr  | nal / inverse)  |  |  |
| • Display Brightness<br>(Reference)  | W: Typ.<br>G: Typ.<br>R: Typ.   | 150 nit   |  |  |
| • Viewing Area Size  | 2.78" (W) ;<br>70.7 mm >  |   |  |  |
| Active Area Size   | 2.62" (W) x 1<br>66.52 mm x   | .31" (H) mm<br>; 33.24 mm   |  |  |
| Contrast / Brightness  | Adjusted from the panel's buil  | t-in configuration setup menu   |  |  |
| <ul> <li>Viewing Angle<br/>(Landscape Mode)</li> </ul>   | 3, 6, 9 o'clock axis -> 45 degrees<br>12 o'clock axis -> 30 degrees   |   |  |  |
| Backlight:   |   |   |  |  |
| • Туре   | LED   |   |  |  |
| Color     White, Red, Green (12 colors)  |   |   |  |  |
| User Replaceable   | No  |   |  |  |
| Touch Screen:  |   |   |  |  |
| •Туре  |   | Analog resistive, single touch*   |  |  |
| Operation  | N/A   | 100 gram force [0.8 N] maximum  |  |  |
| • Life   |   | Minimum of 1,000,000 cycles   |  |  |
| Features:  |   |   |  |  |
| User Memory  | 11  | 1B  |  |  |
| Number of Screens  | Up to 999 – limited by project memory usage   |   |  |  |
| Beep (Internal)  | Ye  |   |  |  |
| Keypad Function Buttons  | Five user defined function key buttons with t<br>Minimum of 5   |   |  |  |
| <ul> <li>Keypad Function Button<br/>LEDs</li> </ul>  | Each function key button includes a re  | d LED that can be user programmed.                                      |  |  |
| Programming Port   | RJ12  | serial  |  |  |
| Serial Communications  | RJ12 serial communi   | cations port (RS-232)   |  |  |
| Ethernet Communications  | N   | Ά   |  |  |
| Screen Objects   |   |   |  |  |
| Functional Devices     Pushbutton, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric     Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dy     Change Pushbutton,     Screen Selector, Adjust Contrast, Function, Key Configuration Object, Real Time Graphics Line Grap |   | ecipe Button, Static Text, Lookup Text, Dynamic Text, Screen ushbutton, |  |  |
| Static Shapes  | Lines, Rectangles,  | Circles and Frames  |  |  |
| Displayable Fonts  | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16   | 6, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts                 |  |  |
| *Note: The Touchscreen is designed to respon   | d to a single touch. If it is touched at multiple points at the s   | ame time, an unexpected object may be activated.                        |  |  |
| C-more Micro EA3-S3ML-RN and EA3-S3ML-R  | panel specifications continued on next page.  |   |  |  |

# C-more Micro EA3-S3ML-RN and EA3-S3ML-R Panels Specifications

| EA3-8   | 3ML-RN and EA3-S3ML-R Specifica   | tions (cont a)   |  |
|---|---|--|--|
| Part Number:  | <u>EA3-S3ML-RN</u>  | <u>EA3-S3ML-R</u>  |  |
| Electrical:   |   |  |  |
| Input Power   | RJ12 port to any Automa   | tionDirect PLC RJ12 port   |  |
| Power Consumption   | 1.05W   | (RJ12)   |  |
| Maximum Inrush Current  | 3.5 A fe  | or 50µs  |  |
| <ul> <li>Acceptable External<br/>Power Drop Duration</li> </ul> | Maxim   | um 1ms   |  |
| Environmental:  |   |  |  |
| Operating Temperature   |   | 32 to 122 °F);<br>it Nb, Thermal Shock)  |  |
| Storage Temperature   | IEC 60068-2-1<br>IEC 60068-2-2 (1   | (–4 to +140 °F)<br>(Test Ab, Cold)<br>Fest Bb, Dry Heat)<br>it Na, Thermal Shock)                                  |  |
| Humidity  | 5–95% RH (no  | on-condensing)   |  |
| • Environmental Air   | For use in Pollution Degree 2 enviro  | nment, no corrosive gases permitted  |  |
| Housing Material  | ABS   | Plastic  |  |
| Gasket Material   | Ships without gasket Silicone Rubber  |  |  |
| Overlay Sheet Material  | PET   |  |  |
| Vibration   | IIEC60068-2-6 (Test Fc)   |  |  |
| Shock   | IEC60068-2-27 (Test Ea)   |  |  |
| • Altitude  | Up to 2000m (6562ft)  |  |  |
| • Noise Immunity  | EN61000-<br>EN61000<br>EN61000-<br>EN61000-<br>EN61000-4-6  | 1131-2)<br>4-2 (ESD),<br>-4-3 (RFI)<br>-4-4 (FTB)<br>4-5 (Serge)<br>6 (Conducted)<br>ency magnetic field immunity) |  |
|   | (Local Test)<br>RFI, (145MHz, 440Mhz 10W @ 10cm)<br>Impulse 1000V @ 1μs pulse   |  |  |
| • Enclosure   | With <u>EA-MG-S3ML-GSK</u> - NEMA 250 type 4/4X indoor use only, UL50 type 4X indoor use only<br>IP-65 indoor use only (Not tested by UL)<br>(When mounted correctly)<br>Without <u>EA-MG-S3ML-GSK</u> - NEMA 250 type 1 indoor use only, UL type 1 indoor use only<br>IP-20 indoor use only (Not tested by UL)<br>(When mounted correctly) |  |  |
| Agency Approvals  | CE (EN61131-2), UL61010, CUL Canadian C22.2, 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<br>number's web page   |  |  |
| Physical  |   |  |  |
| Enclosure Mounting     Thickness Range                          | 0.04" – 0.2   | " [1 – 5 mm]   |  |
| Mounting Clip Screw     Torgue Range                            | 21 – 28 oz∙in [(  | 0.15 – 0.20 Nm]  |  |
| • Weight  | 5.4 oz. (152g)  | 5.5 oz. (156g)   |  |

# *C-more* Micro <u>EA3-S3ML</u> and <u>EA3-T4CL</u> Panels Overview

| C-more Micro EA3 Series Panels |  |   |          |
|--------------------------------|--|---|----------|
| Part Number                    |  | Description   | Price    |
| <u>EA3-S3ML</u>                |  | <b>C-more</b> Micro EA3 series touch screen HMI, 3in monochrome STN LCD, analog resistive, 128 x 64 pixel, LED backlight, (2) serial, (1) Ethernet and (1) microB-USB ports.                | \$01n43: |
| <u>EA3-T4CL</u>                |  | <b>C-more</b> Micro EA3 series touch screen HMI, 4in color TFT LCD, analog resistive, widescreen, 480 x 272 pixel, WQVGA, LED backlight, (2) serial, (1) Ethernet and (1) microB-USB ports. | \$01n44: |

| Part Number | Panel Software / Firmware Version Required |
|-------------|--|
| EA3-S3ML    | 4.20 or later                              |
| EA3-T4CL    | 4.20 01 Idlei                              |

|                       | C-more Micro Programming Software |   |          |  |
|-----------------------|-----------------------------------|---|----------|--|
| Part Number           | Part Number Description P         |   | Price    |  |
| <u>EA-MG-PGMSW</u>    |                                   | <i>C-more</i> Micro Windows programming software, USB or free download. For use with <i>C-more</i> Micro panels. Requires USB port connection from PC to <i>C-more</i> Micro panel. | \$-05lh: |  |
| <u>USB-CBL-AMICB6</u> |                                   | AutomationDirect programming cable, USB A to microB-USB, 6ft cable length. For use with Productivity1000 and Productivity2000 CPUs and most USB devices.                            | \$-?ui:  |  |

|                   | C-more Micro EA3 Series Panel Accessories |  |           |  |
|-------------------|---|--|-----------|--|
| Part Number       |   | Description  | Price     |  |
| <u>EA-ADPTR-4</u> |   | <i>C-more</i> DSUB port adapter, 15-pin male to 15-pin female, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs.   | \$042k:   |  |
| EA-COMCON-3       |   | <i>C-more</i> DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs and <i>C-more</i> CM5 series 4in HMI. | \$-0421:  |  |
| EA-MG-COV-CL      |   | C-more screen protector, clear, 3in. Package of 5. For use with C-more Micro 3in HMIs.   | \$;;06f,: |  |
| <u>EA-4-COV3</u>  |   | <b>C-more</b> Micro screen protector, non-glare, 4in. Package of 3. For use with <b>C-more</b><br>Micro EA3-T4CL 4in HMIs.   | \$1n46:   |  |

## 1-800-633-0405 C-more Micro 3-inch EA3 Touch Panel

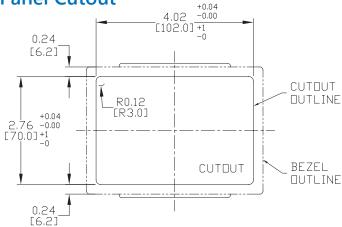
Model EA3-S3ML C-more 3-inch Micro touch panel has a 3.1-inch STN LCD monochrome display and twelve selectable LED-driven backlight colors. It features a 128 x 64 pixel display, and five user-defined function keys each with a user-defined red LED indicator. The EA3-S3ML is powered from a Class 2, 12-24 VDC power supply\*. This *C-more* Micro panel can receive power from the serial communications port of most AutomationDirect PLC's or through the USB port when connected to a PC for programming. The panel is NEMA 4/4X indoor when installed correctly.

\*NOTE: Recommended DC power supply to power the C-more Micro Panel, AutomationDirect Part No. PSL-24-010.

## **Features**

- Touch screen display
- · Free downloadable programming software
- 128 x 64 pixel 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.
- 12-Color LED backlight for longer lifetime; Red, Green, Amber, Yellow, Lime, Pink 1, Pink 2, Pink 3, Emerald 1, Emerald 2, Emerald 3 and White
- Optional clear screen overlay
- 3MB memory
- Built-in USB type Micro-B programming port
- Built-in RJ45 Ethernet 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



## Dimensions

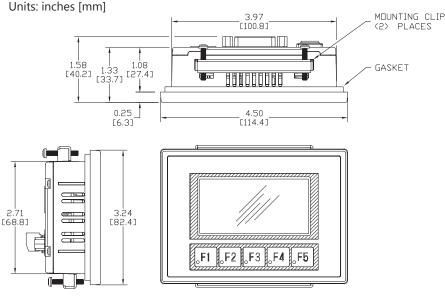
Units: inches [mm]



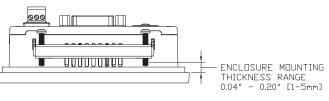


## \$01n43:

| Function             | Available      |
|----------------------|----------------|
| Ethernet             | Yes (Built-in) |
| USB Programming Port | Yes            |
| Serial RJ12 Port     | Yes            |
| Serial DB15 Port     | No             |



**Panel Thickness** 



# C-more Micro 4-inch EA3 Touch Panel

Model <u>EA3-T4CL</u> **C-more** 4" Micro touch panel has a 4.3-inch TFT LCD 482 x 272 pixel display (WQVGA) and a palette of 32K colors for customizing objects, screen backgrounds and displaying bitmap graphics. <u>EA3-T4CL</u> is powered from a Class 2, 12-24 VDC power supply\*. The panel is NEMA 4/4X indoor when installed correctly.



\*NOTE: Recommended DC power supply to power the *C-more* Micro Panel, AutomationDirect Part No. <u>PSL-24-010</u>.

## Features

- Touch screen display
- Free downloadable programming software
- 482 x 272 pixel display (WQVGA) with up to 40 lines by 80 characters of text and graphics
- 32K colors
- Optional clear screen overlay
- 14MB memory
- Built-in USB type Micro-B programming port
- Built-in RJ45 Ethernet 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

**Panel Cutout** 

+0.04

0.36

[9.2]

2.76 -0.00 [70.0] +1

0.36

**195** 

• 2-year warranty from date of purchase



Units: inches [mm]



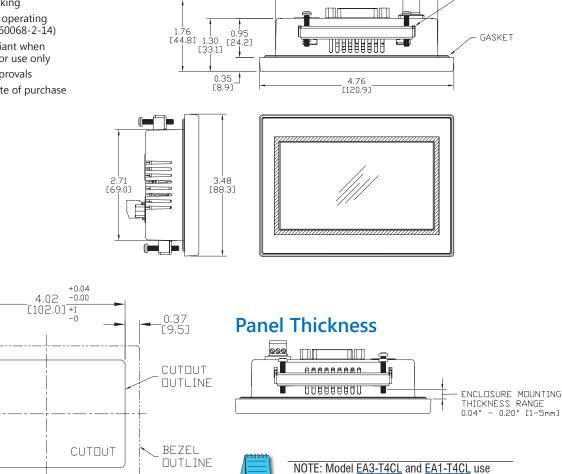


## \$01n44:

| Function             | Available      |
|----------------------|----------------|
| Ethernet             | Yes (Built-in) |
| USB Programming Port | Yes            |
| Serial RJ12 Port     | Yes            |
| Serial DB15 Port     | No             |

MOUNTING CLIP

(2) PLACES



\_\_\_\_\_3.98 [101.0]

different panel cutouts.

www.automationdirect.com

0.37

19.51

## *C-more* Micro <u>EA3-S3ML</u> and <u>EA3-T4CL</u> Panel Specifications

|  | EA3-S3ML and EA3-T4CL Specifica  | tions  |  |
|--|--|--|--|
| Part Number:   | EA3-S3ML   | EA3-T4CL   |  |
| Description:   | 128 x 64 pixel LCD display<br>Five user defined keypad function buttons with five user<br>defined<br>LED indicators  | 480 x 272 pixel LCD display                      |  |
| Display:   |  |  |  |
| • Туре   | 3.1" STN Monochrome<br>with LED Backlight  | 4.3" TFT Graphical type<br>with LED Backlight    |  |
| Resolution   | 128 (W) x 64 (H) pixel   | 480 (W) x 272 (H) pixel                          |  |
| • Color  | 2 colors (normal / inverse)  | 32768 colors                                     |  |
| • Display Brightness<br>(Reference)                    | W: Typ. 150 nit<br>G: Typ. 150 nit<br>R: Typ. 40 nit   | 370 nits (typ)                                   |  |
| Viewing Area Size                                      | 2.78" (W) x 1.53" (H)<br>70.7 mm x 38.8 mm   | 3.89" (W) x 2.26" (H)<br>98.70 mm x 57.50 mm     |  |
| Active Area Size                                       | 2.62" (W) x 1.31" (H) mm<br>66.52 mm x 33.24 mm  | 3.74" (W) x 2.12" (H) mm<br>95.04 mm x 53.86 mm  |  |
| Contrast / Brightness                                  | Adjusted from the panel's buil   | t-in configuration setup menu                    |  |
| <ul> <li>Viewing Angle<br/>(Landscape Mode)</li> </ul> | 3, 6, 9 o'clock axis -> 45 degrees<br>12 o'clock axis -> 30 degrees  | 3, 6, 9, 12 o'clock axis <i>→</i><br>80 degrees  |  |
| Backlight:   |  |  |  |
| • Туре   | LE   | D  |  |
| • Color  | White, Red, Green (12 colors)  | White  |  |
| <ul> <li>User Replaceable</li> </ul>                   | N  | 0  |  |
| Touch Screen:  |  |  |  |
| •Туре  | Analog resistive   | e, single touch*                                 |  |
| Operation  | 100 gram force [0.8 N] maximum   | 82 gram force [0.98 N] maximum                   |  |
| • Life   | Minimum of 1,000,000 cycles  |  |  |
| Features:  |  |  |  |
| User Memory  | 3MB  | 14MB   |  |
| Number of Screens                                      | Up to 999 – limited by   |  |  |
| • Beep (Internal)                                      | Ye   | S  |  |
| Keypad Function Buttons                                | Five user defined function key buttons with the ability to<br>customize label with an overlay.<br>Minimum of 500,000 cycles  |  |  |
| <ul> <li>Keypad Function Button<br/>LEDs</li> </ul>    | Each function key button includes a red LED that can be user programmed.   | N/A  |  |
| Programming Port                                       | USB 2.0 Type Micro-B<br>Built-in Ethernet port   |  |  |
| Serial Communications                                  | RJ12 serial communications port (RS-232)<br>15-pin D-sub serial communications port (RS-232, RS-485 / 422).  |  |  |
| Ethernet Communications                                |  |  |  |
| Screen Objects   |  |  |  |
| • Functional Devices                                   | Pushbutton, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value,<br>Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Screen<br>Change Pushbutton,<br>Screen Selector, Adjust Contrast, Function, Key Configuration Object, Real Time Graphics Line Graph, Analog Meter. |  |  |
| Static Shapes  | Lines, Rectangles, Circles and Frames  |  |  |
| Displayable Fonts                                      | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts  |  |  |
| *Note: The Touchscreen is designed to respon           | d to a single touch. If it is touched at multiple points at the sa   | ame time, an unexpected object may be activated. |  |
| C-more Micro EA3-S3ML and EA3-T4CL panel               | specifications continued on next page.   |  |  |

## *C-more* Micro EA3-S3ML and EA3-T4CL Panel Specifications

| EA3-S3ML and EA3-T4CL Specifications (cont'd)                   |   |  |  |
|---|---|--|--|
| Part Number:  | EA3-S3ML  | EA3-T4CL   |  |
| Electrical:   | · · · · · · · · · · · · · · · · · · ·   |  |  |
| • Input Power   | RJ12 port to any AutomationDirect PLC RJ12 port (for serial<br>communication only)<br>USB Micro-B port to PC<br>10.2 - 26.4 VDC; Class 2 or SELV (Safety Extra-Low<br>Voltage)or Limited Energy Circuit power supply      | USB Micro-B port to PC<br>10.2 - 26.4 VDC; Class 2 or SELV (Safety Extra-Low<br>Voltage)or Limited Energy Circuit power supply |  |
| Power Consumption   | 1.05W (RJ12)<br>2W (USB)<br>3W (External Power Supply)  | 2.5W (USB)<br>4W (External Power Supply)   |  |
| <ul> <li>Maximum Inrush Current</li> </ul>                      | 20A for 240µs (DC power supply)   | 22A for 240µs (DC power supply)  |  |
| <ul> <li>Acceptable External<br/>Power Drop Duration</li> </ul> | Maximu  | m 1ms  |  |
| Environmental:  |   |  |  |
| Operating Temperature   | 0 to 50 °C (3<br>IEC 60068-2-14 (Test   |  |  |
| Storage Temperature   | -20 to +60 °C (-4 to +140 °F)<br>IEC 60068-2-1 (Test Ab, Cold)<br>IEC 60068-2-2 (Test Bb, Dry Heat)<br>IEC 60068-2-14 (Test Na, Thermal Shock)  |  |  |
| Humidity  | 5–95% RH (non-condensing)   |  |  |
| <ul> <li>Environmental Air</li> </ul>                           | For use in Pollution Degree 2 environment, no corrosive gases permitted   |  |  |
| <ul> <li>Housing Material</li> </ul>                            | ABS Plastic   | ABS-GF20   |  |
| <ul> <li>Gasket Material</li> </ul>                             | Silicone Rubber   |  |  |
| <ul> <li>Overlay Sheet Material</li> </ul>                      | PET   |  |  |
| Vibration   | IIEC60068-2-6 (Test Fc)   |  |  |
| • Shock   | IEC60068-2-27 (Test Ea)   |  |  |
| • Altitude  | Up to 2000  | m (6562ft)   |  |
| Noise Immunity  | (EN61131-2)<br>EN61000-4-2 (ESD),<br>EN61000-4-3 (RFI)<br>EN61000-4-4 (FTB)<br>EN61000-4-5 (Serge)<br>EN61000-4-6 (Conducted)<br>EN61000-4-8 (Power frequency magnetic field immunity)<br>(Local Test)                    |  |  |
|   | RFI, (145MHz, 440Mhz 10W @ 10cm)<br>Impulse 1000V @ 1µs pulse   |  |  |
| • Enclosure   | NEMA 250 type 4/4X indoor use only<br>UL50 type 4X indoor use only<br>IP-65 indoor use only (not tested by UL)<br>(When mounted correctly)  |  |  |
| Agency Approvals  | CE (EN61131-2), UL61010, CUL Canadian C22.2, 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<br>number's web page |  |  |
| Physical  |   |  |  |
| • Enclosure Mounting<br>Thickness Range                         | 0.04" – 0.2"  | [1 – 5 mm]   |  |
| Mounting Clip Screw     Torque Range                            | 21 – 28 oz∙in [0  | 21 – 28 oz∙in [0.15 – 0.20 Nm]   |  |
| • Weight  | 6.7 oz. (190g)  | 7.76 oz. (220g)  |  |

## 1-800-633-0405 C-more Micro EA3-T6CL Panel Overview

| C-more Micro EA3 Series Panels |  |   |           |
|--------------------------------|--|---|-----------|
| Part Number                    |  | Description   | Price     |
| <u>EA3-T6CL</u>                |  | <i>C-more</i> Micro EA3 series touch screen HMI, 6in color TFT LCD, analog resistive, 320 x 240 pixel, QVGA, LED backlight, (2) serial and (1) USB B ports. | \$-010di: |

| Part Number | Panel Software / Firmware Version<br>Required |
|-------------|---|
| EA3-T6CL    | 3.6 or later                                  |

| C-more Micro Programming Software |  |   |          |
|-----------------------------------|--|---|----------|
| Part Number                       |  | Description   | Price    |
| <u>EA-MG-PGMSW</u>                |  | <i>C-more</i> Micro Windows programming software, USB or free download. For use with <i>C-more</i> Micro panels. Requires USB port connection from PC to <i>C-more</i> Micro panel. | \$-05lh: |
| USB-CBL-AB3                       |  | AutomationDirect programming cable, USB A to USB B, 3ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.                | \$04kd:  |
| USB-CBL-AB6                       |  | AutomationDirect programming cable, USB A to USB B, 6ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.                | \$04ke:  |
| USB-CBL-AB10                      |  | AutomationDirect programming cable, USB A to USB B, 10ft cable length. For use with<br><i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.               | \$04kb:  |
| USB-CBL-AB15                      |  | AutomationDirect programming cable, USB A to USB B, 15ft cable length. For use with<br>C-more HMIs, Do-more and Productivity series CPUs and most USB devices.                      | \$04kc:  |

## 1-800-633-0405 C-more Micro EA3-T6CL Panel Overview

| C-more Micro EA3 Series Panel Accessories |   |  |          |
|---|---|--|----------|
| Part Number                               |   | Description  | Price    |
| <u>EA-ECOM</u>                            |   | <b>C-more</b> communication expansion module, (1) RJ45 10/100 Mbps Ethernet port. For use with <b>C-more</b> Micro EA3 series 6in, 8in and 10in panels and all <b>C-more</b> HMIs except CM5 series and -R models.   | \$010##: |
| <u>EA-ADPTR-4</u>                         |   | <i>C-more</i> DSUB port adapter, 15-pin male to 15-pin female, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs.   | \$042k:  |
| <u>EA-COMCON-3</u>                        |   | <i>C-more</i> DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, right angle cable entry. For use with <i>C-more</i> Micro EA1 series 4in and 6in HMIs, <i>C-more</i> Micro EA3 series 3in, 4in, and 6in HMIs, <i>C-more</i> EA9 6in and 7in HMIs and <i>C-more</i> CM5 series 4in HMI. | \$-042I: |
| <u>EA-COMCON-3A</u>                       | A CONTRACT OF A | <i>C-more</i> Micro DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, straight cable entry. For use with <i>C-more</i> Micro EA1 3in with EA1-MG-SP1, EA3 8in and 10in HMIs, <i>C-more</i> EA9 8in, 10in, 12in and 15in and CM5 7in, 10in, 12in, 15in and 22in HMIs.                   | \$0429:  |
| <u>EA-6-COV2</u>                          |   | C-more screen protector, non-glare, 6in. Package of 3. For use with C-more and<br>C-more Micro 6in HMIs.   | \$06g4:  |
| <u>EA-8-COV2</u>                          |   | C-more screen protector, non-glare, 8in. Package of 3. For use with C-more and<br>C-more Micro 8in HMIs.   | \$06g5:  |
| <u>EA-10-COV2</u>                         |   | <i>C-more</i> Micro screen protector, non-glare, 10in. Package of 3. For use with <i>C-more</i> EA9-T10CL and <i>C-more</i> Micro EA3-T10CL HMIs.  | \$06g1:  |

## 1-800-633-0405 -more Micro 6-inch TFT EA3 Touch Panel

Model EA3-T6CL C-more 6-inch Micro touch panel has a 5.7-inch TFT LCD 320 x 240 pixel 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 C-more 6-inch Micro TFT panels are powered from a Class 2, 12-24 VDC power supply\*. The panel is NEMA 4/4X indoor when installed correctly.



\*NOTE: Recommended DC power supply to power the C-more Micro Panel, AutomationDirect Part No. PSL-24-010.

#### Features

- Touch screen display
- Free downloadable programming software
- 320 x 240 pixel display with up to 40 lines by 80 characters of text and graphics in landscape mode
- Up to 40 characters of dynamic text with embedded variables and phrases mixed with graphics
- Five 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
- 6MB memory
- Supports Ethernet expansion module (EA-ECOM)
- 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

0.26

[6.5]

R0,12 [R3.0]

TYPICAL

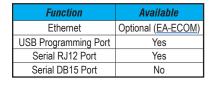
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## **Panel Cutout**

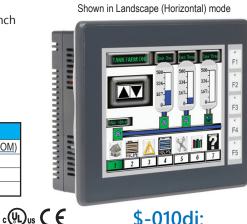
0.26

[6,6]

0.26



#### Part No. EA3-T6CL

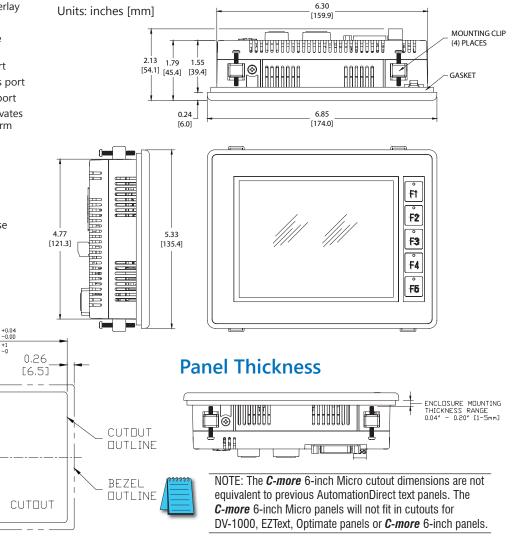


## \$-010di:



\*NOTE: The EA3-T6CL can be powered through the USB port 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



# *C-more* Micro <u>EA3-T6CL</u> Panel Specifications

| Part Number:<br>Description:<br>Display:<br>• Type<br>• Resolution<br>• Color | EA3-T6CL         320 x 240 pixel LCD display<br>(Landscape mode),         Five user defined keypad function buttons with five user defined LED indicators         5.7" TFT Graphical type<br>with LED Backlight         320 (W) x 240 (H) pixel (Landscape Mode)<br>240 (W) x 320 (H) pixel (Portrait Mode)         32768 colors  |
|---|---|
| Display:       • Type       • Resolution       • Color                        | (Landscape mode),<br>Five user defined keypad function buttons with five user defined LED indicators<br>5.7" TFT Graphical type<br>with LED Backlight<br>320 (W) x 240 (H) pixel (Landscape Mode)<br>240 (W) x 320 (H) pixel (Portrait Mode)  |
| Type     Resolution     Color   | 5.7" TFT Graphical type<br>with LED Backlight<br>320 (W) x 240 (H) pixel (Landscape Mode)<br>240 (W) x 320 (H) pixel (Portrait Mode)  |
| Resolution     Color  | with LED Backlight<br>320 (W) x 240 (H) pixel (Landscape Mode)<br>240 (W) x 320 (H) pixel (Portrait Mode)   |
| • Color   | 240 (W) x 320 (H) pixel (Portrait Mode)   |
|   | 32768 colors  |
|   |   |
| Display Brightness     (Reference)  | 270 nits (typ)  |
| • Viewing Area Size   | 4.57" (W) x 3.44" (H)<br>[116.2 mm x 87.4 mm]   |
| Active Area Size  | 4.54" (W) x 3.40" (H)<br>[115.2 mm x 86.4 mm]   |
| <ul> <li>Contrast / Brightness</li> </ul>                                     | Adjusted from the panel's built-in configuration setup menu   |
| • Viewing Angle<br>(Landscape Mode)   | 3, 9 o'clock axis -> 80 degrees<br>6 o'clock axis -> 65 degrees<br>12 o'clock axis -> 80 degrees  |
| Backlight:  |   |
| • Туре  | LED   |
| • Color   | White   |
| User Replaceable  | No  |
| Touch Screen:   |   |
| •Туре   | Analog resistive, single touch*   |
| Operation   | 82 gram force [0.8 N] maximum   |
| • Life  | Minimum of 1,000,000 cycles   |
| Features:   |   |
| User Memory   | 6MB   |
| Number of Screens   | Up to 999 – limited by project memory usage   |
| • Beep (Internal)   | Yes   |
| Keypad Function Buttons   | Five user defined function key buttons with the ability to customize label with an overlay.<br>Minimum of 500,000 cycles  |
| Keypad Function Button     LEDs   | Each function key button includes a red LED that can be user programmed.  |
| Programming Port  | USB 2.0 Type B  |
| Serial Communications   | RJ12 serial communications port (RS-232)<br>15-pin D-sub serial communications port (RS-232, RS-485 / 422).   |
| Ethernet Communications   | 10/100 Base-T (Automatic Negotiation) with EA-ECOM Module   |
| Screen Objects  |   |
| • Functional Devices  | shbutton, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value,<br>ar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Screen<br>Change Pushbutton,<br>Screen Selector, Adjust Contrast, Function, Key Configuration Object, Real Time Graphics Line Graph, Analog Meter. |
| Static Shapes   | Lines, Rectangles, Circles and Frames   |
| Displayable Fonts   | Fixed fonts: 4x6, 6x6, 6x6B, 6x8, 8x16, 8x32, 8x64, 16x16, 16x32, 16x64, 32x16, 32x32, 32x64, and Windows fonts   |
| , ,   | a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.  |

# *C-more* Micro <u>EA3-T6CL</u> Panel Specifications

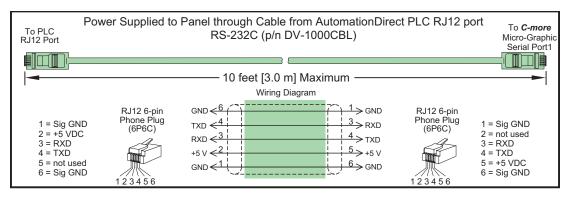
| EA3-T6CL Specifications (cont'd)                                |   |  |
|---|---|--|
| Part Number:  | EA3-T6CL  |  |
| Electrical:   |   |  |
| • Input Power   | 10.2 - 26.4 VDC; Class 2 or<br>SELV (Safety Extra-Low Voltage)<br>or Limited Energy Circuit power supply<br>5VDC USB B-Port to PC   |  |
| Power Consumption   | 7.5 W (External power supply)<br>2.0 W (USB)  |  |
| Maximum Inrush Current  | 13A for 800µs   |  |
| <ul> <li>Acceptable External<br/>Power Drop Duration</li> </ul> | Maximum 1ms   |  |
| Environmental:  |   |  |
| Operating Temperature   | 0 to 50 °C (32 to 122 °F); Maximum surrounding air temperature rating: 50 °C (122 °F)<br>IEC 60068-2-14 (Test Nb, Thermal Shock)  |  |
| Storage Temperature   | -20 to +60 °C (-4 to +140 °F)<br>IEC 60068-2-1 (Test Ab, Cold)<br>IEC 60068-2-2 (Test Bb, Dry Heat)<br>IEC 60068-2-14 (Test Na, Thermal Shock)  |  |
| Humidity  | 5–95% RH (non-condensing)   |  |
| Environmental Air   | For use in Pollution Degree 2 environment, no corrosive gases permitted   |  |
| Housing Material  | ABS Plastic   |  |
| <ul> <li>Gasket Material</li> </ul>                             | Silicone Rubber   |  |
| Overlay Sheet Material  | PET   |  |
| Vibration   | IIEC60068-2-6 (Test Fc)   |  |
| • Shock   | IEC60068-2-27 (Test Ea)   |  |
| • Altitude  | Up to 2000m (6562ft)  |  |
| • Noise Immunity  | (EN61131-2)<br>EN61000-4-2 (ESD),<br>EN61000-4-3 (RFI)<br>EN61000-4-4 (FTB)<br>EN61000-4-5 (Serge)<br>EN61000-4-6 (Conducted)<br>EN61000-4-8 (Power frequency magnetic field immunity)  |  |
|   | (Local Test)<br>RFI, (145MHz, 440Mhz 10W @ 10cm)<br>Impulse 1000V @ 1μs pulse   |  |
| • Enclosure   | NEMA 250 type 4/4X indoor use only<br>UL50 type 4X indoor use only<br>IP-65 indoor use only (not tested by UL)<br>(When mounted correctly)  |  |
| Agency Approvals  | 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<br>number's web page |  |
| Physical:   |   |  |
| <ul> <li>Enclosure Mounting<br/>Thickness Range</li> </ul>      | 0.04" – 0.2" [1 – 5 mm]   |  |
| Mounting Clip Screw     Torque Range                            | 21 – 28 oz∙in [0.15 – 0.20 Nm]  |  |
| • Weight  | 21.1 oz. (600g)   |  |

## 1-800-633-0405 For the latest prices, please ch **C-more Micro EA3 Series PLC Drivers**

| Serial - port1 or port2   | Serial - port2 only   | Ethernet*   |
|---|---|---|
| AutomationDirect Productivity Series  | Allen-Bradley DF1 Half Duplex   | AutomationDirect Productivity Series Ethernet                                 |
| AutomationDirect Do-more / BRX**  | Allen-Bradley DF1 Full Duplex   | AutomationDirect Do-more / BRX Ethernet                                       |
| AutomationDirect CLICK  | Allen-Bradley PLC5 DF1  | AutomationDirect CLICK Ethernet   |
| AutomationDirect K-sequence   | Allen-Bradley DH485   | AutomationDirect ECOM Ethernet  |
| AutomationDirect DirectNET  | GE SNPX (90/30, 90/70, Micro 90, VersaMax Micro)  | Modbus TCP/IP   |
| AutomationDirect Modbus (master only)   | Mitsubishi FX   | Allen-Bradley EtherNet/IP(Client) SLC5/05                                     |
| Modicon Modbus RTU (master only)  | Mitsubishi Q & QnA  | Allen-Bradley EtherNet/IP(Client) ENI Adapter                                 |
| Entivity Modbus RTU (master only)   | Omron Host Link (C200 Adapter, C500)  | Allen-Bradley EtherNet/IP(Client) MicroLogix 1100/1400                        |
|   | Omron FINS Serial (CJ1, CS1)  | Allen-Bradley EtherNet/IP (Client) Control/CompactLogix<br>(SLC Mapping only) |
|   | Siemens PPI (S7-200 CPU)  |   |
|   | AutomationDirect SOLO Temperature Controller  |   |
|   | AutomationDirect GS Drives  |   |
| * Ethernet port is built in to <u>EA3-S3ML</u> a<br>Ethernet communications require exte<br>** BX-P-SER2-RJ12 is required | nd <u>EA3-T4CL</u> . <u>EA3-T6CL</u> requires the optional <u>EA-ECOI</u><br>rnal power supply. | <u>M</u> module for Ethernet.   |

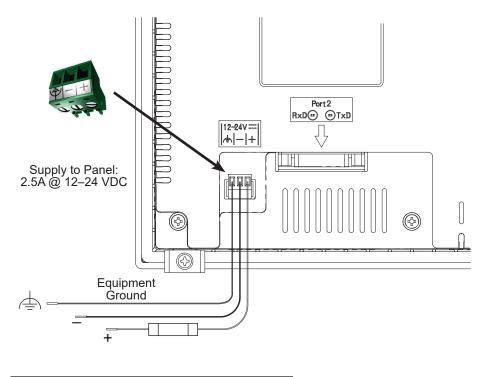
## C-more Micro EA3 Series Power Connection Wiring EA3-S3ML-RN and EA3-S3ML-R

- <u>EA3-S3ML-RN</u> and <u>EA3-S3ML-R</u> **C-more** Micro panels are powered during programming from the PC through the USB to RS-232 Programming Cable Assembly, <u>EA-MG-PGM-CBL</u>.
- During operation, <u>EA3-S3ML-RN</u> and <u>EA3-S3ML-R</u> *C-more* Micro panels can be powered from most AutomationDirect PLC's RJ12 serial communications ports by using the <u>DV-1000CBL</u> communications cable.



## EA3-S3ML, EA3-T4CL and EA3-T6CL

EA3-S3ML, EA3-T4CL and EA3-T6CL C-more Micro EA3 series panels are powered by a Class 2, 2.5 Amp @ 12-24 VDC power source in normal operation.





WARNING: USING A DIFFERENTIAL POWER SUPPLY AND CONNECTION THE USB TO A PC CAN DAMAGE BOTH THE PANEL AND THE PC.

#### C-more Micro EA3 Series PLC Connections **Cabling requirements Communication Ports**

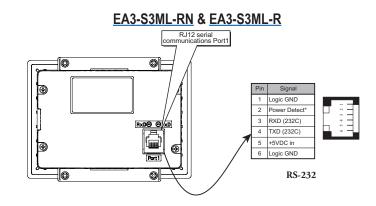
The table below decribes the EA3 series cabling options available for most AutomationDirect PLCs.

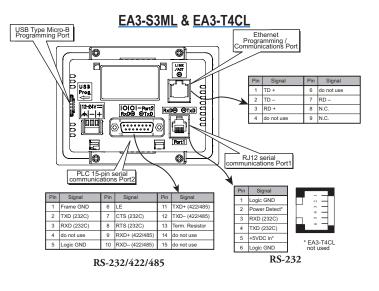
| EA3 Series Cabling Options   |   |  |  |  |
|--|---|--|--|--|
| Part Number  | Port1 RJ12<br>(RS-232)  | Port2 15-pin<br>(RS-232)<br>See PLC List A | Port2 15-pin<br>(RS-232)<br>See PLC List B |  |
| <u>EA3-S3ML</u>  |   | EA-2CBL                                    | <u>EA-2CBL-1</u>                           |  |
| <u>EA3-S3ML-R</u>  | DV-1000CBL*   | N/A  | N/A  |  |
| <u>EA3-S3ML-RN</u>   |   |  |  |  |
| <u>EA3-T4CL</u>  | DV-1000CBL,   | EA-2CBL                                    | EA-2CBL-1                                  |  |
| <u>EA3-T6CL</u>  | D0-CBL  | EA-20BL                                    | EA-20BL-1                                  |  |
| PLC List A   | Productivity Series, Do-more / BRX**, CLICK, DL05,<br>DL105, DL205, D3-350, D4-450 phone jack |  |  |  |
| PLC List B   | D2-250, D250-1, D2-260, DL06 VGA connector  |  |  |  |
| *Cable can provide +5VDC for panel power<br>** <u>BX-P-SER2-RJ12</u> is required |   |  |  |  |

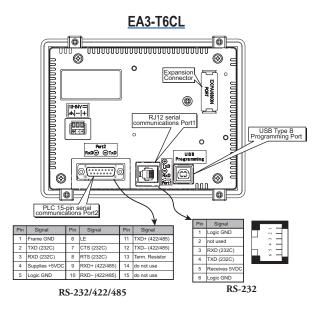
## **Drivers for your Controller**

- AutomationDirect Productivity Series serial / Ethernet\*
- AutomationDirect Do-more / BRX serial / Ethernet\*
- AutomationDirect CLICK (Modbus(master only))- serial / Ethernet\*
- DirectLOGIC K-sequence, DirectLOGIC DirectNET, DirectLOGIC Modbus (master only) (Koyo Addressing) DirectLOGIC ECOM Ethernet\*
- Modbus RTU (master only) Modbus TCP/IP\*
- Allen-Bradley DF1 Full Duplex, Allen-Bradley DF1 Half Duplex, Allen-Bradley PLC5 DF1, AB DH485, Allen-Bradley EtherNet/ IP (Client) SLC5/05, NET-ENI, MicroLogix 1100/1400\*, Control/ CompactLogix (SLC mapping only)
- 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 (master only)
- AutomatiionDirect GS Drives
- AutomationDirect SOLO Temperature Controllers
- Mitsubishi Q/QnA

\* Ethernet port is built in to EA3-S3ML and EA3-T4CL and EA3-T6CL require the optional EA-ECOM module for Ethernet.



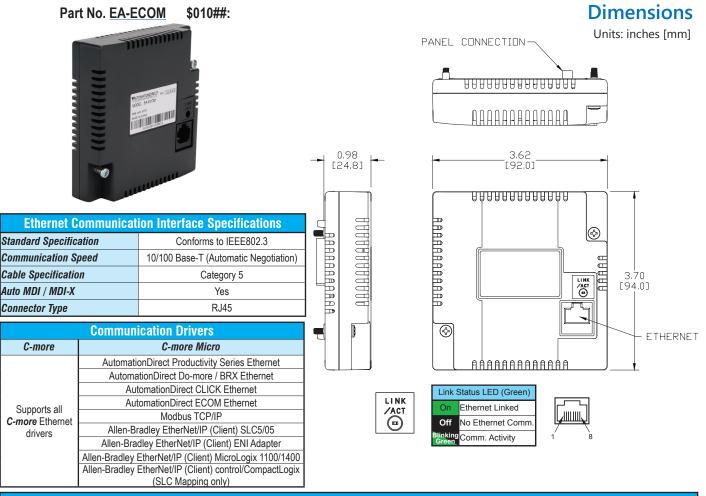




## **Communication Expansion Module**

### **EA-ECOM** Ethernet Communication Module

The <u>EA-ECOM</u> communication module is compatible with EA3 series *C-more* Micro 6-inch, 8-inch and 10-inch panels and most *C-more* panels. It adds an Ethernet (RJ45) port for programming and PLC communications at 10/100 Mbps. *C-more* Micro Software and firmware version 4.0 or later is required. *C-more* Software and firmware version 6.50 or later is required.



| EA-ECOM Specifications                 |  |  |  |
|--|--|--|--|
| Part Number                            | <u>EA-ECOM</u>   |  |  |
| Operating Temperature                  | 0 to 50 °C (32 to 122 °F)<br>Maximum surrounding air temperature rating: 50 °C   |  |  |
| Storage Temperature                    | –20 to +60 °C (–4 to +140 °F)  |  |  |
| Humidity                               | 5–95% RH (non-condensing)  |  |  |
| Environmental Air                      | For use in pollution degree 2 environment  |  |  |
| Vibration                              | 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%),<br>10 sweep cycles per axis on each of 3 mutually perpendicular axes      |  |  |
| Shock                                  | IEC60068-2-27 (Test Ea), 15 G peak, 11ms duration, three shocks in each direction<br>per axis, on 3 mutually perpendicular axes (total of 18 shocks)                                     |  |  |
| Noise Immunity                         | NEMA ICS3-304<br>RFI, (145 MHz, 440 MHz 10 W @ 10 cm)<br>Impulse 1000 V @ 1 µs pulse   |  |  |
| Emission                               | EN55011 Class A (Radiated RF emission)   |  |  |
| Enclosure<br>(panel door installation) | 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)  |  |  |
| Agency Approvals                       | CE (EN61131-2), UL508, CUL Canadian C22.2<br>To obtain the most current agency approval information,<br>see the Agency Approval Checklist section on the specific part number's web page |  |  |
| Mounting Torque                        | 50 oz∙in [0.35 N·m]  |  |  |
| Weight                                 | 0.23 lb [105g]   |  |  |

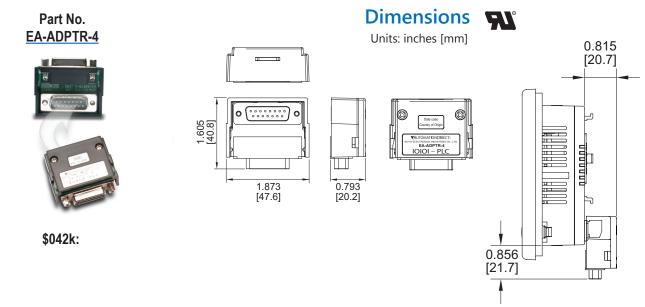
www.automationdirect.com

# *C-more* Micro EA3 Panel Accessories

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

The <u>EA-ADPTR-4</u> adapter plugs into the 15-pin serial port on the rear of **C-more** Micro EA3 Series 3-inch\*, 4-inch and 6-inch panels 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.

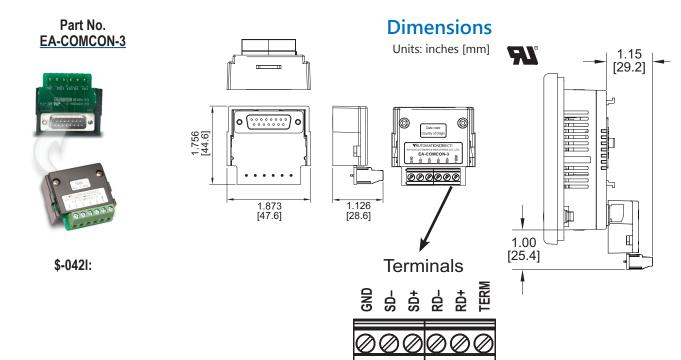
\* EA3-S3ML-RN and EA3-S3ML-R are not equipped with a 15-pin serial port.



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

The <u>EA-COMCON-3</u> adapter plugs into the 15-pin serial port on the rear of **C-more** Micro EA3 Series 3-inch\*, 4-inch and 6-inch panels to allow wire terminal connections for an RS-422/RS-485/DH485 PLC communication cable. UL Recognized.

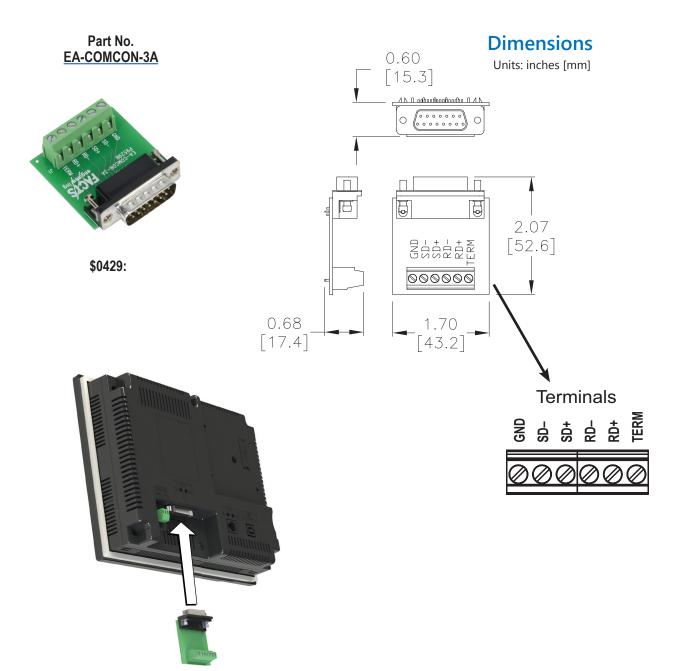
\* EA3-S3ML-RN and EA3-S3ML-R are not equipped with a 15-pin serial port.



# *C-more* Micro EA3 Panel Accessories

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

The <u>EA-COMCON-3A</u> adapter plugs into the 15-pin serial port on the rear of **C-more** Micro EA3 Series 8-inch and 10-inch panels to allow wire terminal connections for an RS-422/RS-485/DH485 PLC communication cable.



## **C-more** Micro EA3 Panel Accessories

### **Clear Screen Overlay**

Optional clear screen overlay used to protect *C-more* Micro displays from minor scratches and wear. <u>EA-MG-COV-CL</u> contains 5 clear screen overlays. All other packages contain 3 clear screen overlays.



Part No. <u>EA-MG-COV-CL</u> \$;;06f,:

Part No. <u>EA-4-COV3</u> \$1n46:

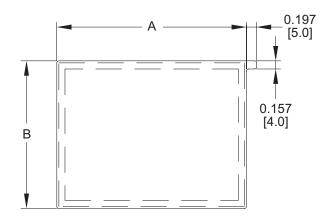
Part No. <u>EA-6-COV2</u> \$06g4:

Part No. <u>EA-8-COV2</u> \$06g5:

Part No. <u>EA-10-COV2</u> \$06g1:

### Dimensions

Units: inches [mm]



| Part Number       | Dimensions - inch [mm] |                 |  |
|-------------------|------------------------|-----------------|--|
| Fart Number       | Α                      | В               |  |
| EA-MG-COV-CL      | 3.13<br>[79.4]         | 1.75<br>[44.4]  |  |
| EA-4-COV3         | 4.15<br>[105.5]        | 2.52<br>[64.0]  |  |
| EA-6-COV2         | 4.91<br>[124.8]        | 3.80<br>[96.4]  |  |
| EA-8-COV2         | 7.32<br>[185.8]        | 5.44<br>[138.2] |  |
| <u>EA-10-COV2</u> | 8.91<br>[226.2]        | 6.61<br>[168.0] |  |

## **C-more Micro 3-inch and 4-inch EA3 Panel Replacement Parts**

## **Replacement parts at a glance:**

| Part Number     | Description   | Price    |
|-----------------|---|----------|
| EA-MG-S3ML-BRK  | C-more Micro panel mounting brackets, replacement. Package of 2. For use with C-more Micro 3in and EA3-<br>T4CL HMIs.   | \$05h7:  |
| EA-MG-DC-CON    | C-more Micro DC 3-terminal power connector, replacement. Package of 5. For use with all C-more Micro 4in,<br>6in, 8in and 10in panels, and power adapters EA-MG-P1 and EA-MG-SP1. | \$04c3:  |
| EA-MG-S3ML-GSK  | C-more Micro panel mounting gasket, replacement. For use with C-more Micro EA1 series 3in HMIs.   | \$;06h]: |
| <u>EA-4-GSK</u> | C-more Micro panel mounting gasket, replacement. For use with C-more Micro EA3-T4CL 4in HMIs.   | \$1n47:  |
| EA-MG-S3ML-FKL  | C-more Micro function key label insert, replacement. Package of 10. For use with C-more Micro 3in HMIs. (5) blank labels and (5) landscape F1-F5 label included.                  | \$04cy:  |

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



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



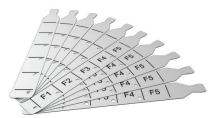
**EA3-T4CL Panel Gasket** Part No. EA-4-GSK



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



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



(pk of 10 - 5 blank, 5 F1-F5)

## *C-more* Micro 6-inch EA3 Panel Replacement Parts

## Replacement parts at a glance:

| Part Number          | Description   | Price   |
|----------------------|---|---------|
| <u>EA-MG-BZ2-BRK</u> | C-more Micro panel mounting brackets, replacement. Package of 8. For use with C-more Micro 4in and 6in panels, all 6in bezels, and 3in bezel EA-MG-BZ2.                                   | \$05h6: |
| EA-MG-DC-CON         | C-more Micro DC 3-terminal power connector, replacement. Package of 5. For use with all C-more Micro 4in,<br>6in, 8in and 10in panels, and power adapters EA-MG-P1 and EA-MG-SP1.         | \$04c3: |
| EA-MG6-S6ML-GSK      | C-more Micro panel mounting gasket, replacement. For use with C-more Micro 6in panels.  | \$06h#: |
| EA-MG6-S6ML-FKL      | C-more Micro function key label insert, replacement. Package of 5. For use with C-more Micro 6in HMIs. (3) blank labels, (1) portrait F1-F5 label and (1) landscape F1-F5 label included. | \$04c_: |

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



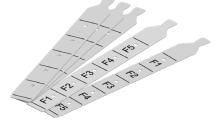
(pk of 8)

DC Power Connector Part No. <u>EA-MG-DC-CON</u>



(pk of 5)

#### Function Keys Label Inserts Part No. <u>EA-MG6-S6ML-FKL</u>



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

Panel Gasket Part No. <u>EA-MG6-S6ML-GSK</u>



## *C-more* Micro 8-inch and 10-inch EA3 Panel Replacement Parts

## Replacement parts at a glance:

| Part Number       | Description  | Price    |
|-------------------|--|----------|
| <u>EA3-BRK</u>    | C-more Micro panel mounting brackets, replacement. Package of 8. For use with C-more Micro EA3 series touch panels.  | \$05hd:  |
| EA-MG-DC-CON      | C-more Micro DC 3-terminal power connector, replacement. Package of 5. For use with all C-more Micro 4in,<br>6in, 8in and 10in panels, and power adapters EA-MG-P1 and EA-MG-SP1.                | \$04c3:  |
| <u>EA3-8-GSK</u>  | C-more Micro panel mounting gasket, replacement. For use with C-more Micro EA3-T8CL 8in touch panel.   | \$;06e,: |
| <u>EA3-10-GSK</u> | C-more Micro panel mounting gasket, replacement. For use with C-more Micro EA3-T10CL 10in touch panel.   | \$06e?:  |
| EA3-MG-8-FKL      | C-more Micro function key label insert, replacement. Package of 5. For use with C-more Micro EA3-T8CL HMI.<br>(3) blank labels, (1) portrait F1-F7 label and (1) landscape F1-F7 label included. | Retired  |



Panel Gasket Part No. <u>EA3-10-GSK</u>



www.automationdirect.com

## *C-more* Micro Communication Cables and Cable Kits

| Cable  | Cable              |                |
|--|--------------------|----------------|
| Description  | Part Number        | Price          |
| Cables for direct connect to panel's serial Port1  |                    |                |
| (Panel powered from PLC's serial port.)  |                    |                |
| Networking cable, RS-232 (RJ12 6P6C) to RS-232 (RJ12 6P6C), shielded,  |                    |                |
| 12ft cable length. For use with CLICK, DL05, D2-240, D4-450 and  | D0-CBL             | \$0c8_:        |
| Productivity3000 PLCs.   |                    |                |
| DirectLOGIC DL06 connector, 15-pin D-sub HD15 male to RJ12 female. For use with DL06 CPUs and DL205 D2-250, D2-250-1, D2-260 and D2-262                    | FA-15HD            | \$;08zf:       |
| CPUs.  | I A-IJIID          | φ,0021.        |
| DirectLOGIC universal cable kit, for use with all DirectLOGIC PLCs with  |                    |                |
| RS-232 ports.  | FA-CABKIT          | \$08za:        |
| Cables used with serial Port2  |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ12,   |                    |                |
| shielded, 9.8ft/3m cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel   | EA-2CBL            | \$-04jn:       |
| and AutomationDirect PLCs with RJ12 ports.   |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 15-pin D-sub  |                    | <b>*</b> • • • |
| HD15 male, shielded, 3m/9.8ft cable length. For use with <b>C-more</b> or <b>C-more</b>  | EA-2CBL-1          | \$-04jo:       |
| Micro panel and a DL06, D2-250(-1), D2-260 or D2-262 (bottom port) CPU.<br>AutomationDirect communication cable, 15-pin male D-sub to 4-pin RJ11,          |                    |                |
| shielded, 3m/9.8ft cable length. For use with <b>C-more</b> or <b>C-more</b> Micro panel   | EA-3CBL            | Retired        |
| and a D3-340 CPU top or bottom port.   |                    | 1 totil ou     |
| AutomationDirect communication cable, 15-pin male D-sub to 15-pin male   |                    |                |
| D-sub, shielded, 3m/9.8ft cable length. For use with C-more or C-more  | EA-4CBL-1          | \$-04jq:       |
| Micro panel and a DL405 (top port) CPU.  |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 25-pin male   |                    |                |
| D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i>  | EA-4CBL-2          | \$-04js:       |
| Micro panel and a D2-DCM, D3-232-DCU, D3-350 (bottom port) or DL405 (bottom port) CPU.   |                    | -              |
| AutomationDirect communication cable, 15-pin male D-sub to 8-pin male  |                    |                |
| mini DIN, shielded, 3m/9.8ft cable length. For use with C-more or C-more   | EA-MLOGIX-CBL      | \$-04jy:       |
| Micro panel and an Allen-Bradley Micrologix CPU.   |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 9-pin female  |                    |                |
| D-sub, shielded, 3m/9.8ft cable length. For use with <b>C-more</b> or <b>C-more</b>  | EA-SLC-232-CBL     | \$;-04j[:      |
| Micro panel and an Allen-Bradley SLC 5/03, 5/04 or 5/05 CPU with DF-1 port.  |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 25-pin male   |                    |                |
| D-sub, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel  | EA-PLC5-232-CBL    | Retired        |
| and an Allen-Bradley PLC-5 CPU with a DF1 port.  |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ45,   |                    |                |
| shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel   | EA-DH485-CBL       | \$-04ju:       |
| and an Allen-Bradley SLC 5/01, 5/02 or 5/03 CPU with a DH485 port cable.   |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 15-pin male D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> | EA-90-30-CBL       | ¢. 04:+-       |
| Micro and GE Fanuc Series 90/30 or 90/70 serial port.  | EA-90-30-00L       | \$;-04jt:      |
| AutomationDirect communication cable, 15-pin male D-sub to 25-pin male   |                    |                |
| D-sub, 3m/9.8ft cable length. For use with <b>C-more</b> or <b>C-more</b> Micro panel  | EA-MITSU-CBL       | \$-04jv:       |
| and a Mitsubishi FX Series CPU.  |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 8-pin male  |                    |                |
| mini DIN, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i>   | EA-MITSU-CBL-1     | \$-04jx:       |
| Micro panel and a Mitsubishi FX Series CPU.  |                    |                |
| AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> | EA-OMRON-CBL       | \$-04jz:       |
| Micro panel and an Omron C200 or C500 CPU.   |                    | ψ-04j2.        |
| Note: Adding the optional <u>EA-ECOM</u> module allows communication via a   | an Ethernet connec | tion           |
| (EA3 series only).   |                    | -              |
|  |                    |                |









EA-MITSU-CBL





EA-OMRON-CBL

www.automationdirect.com

Operator Interface tC

tCMM-47

#### 1-800-633-0405

## **C-more Micro Programming Software**

### **FREE software!**

C-more Micro Programming Software

is a spin-off of its powerful sibling

Touch Panel. It offers very high end

configuration time. Simply drag and drop the objects from the object list

(right side of screen) onto the screen

PLC tags and click on the objects you

wish to use. Use the built-in simulator

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 to download a

Thumbnail

Helps keep track of

project

preview

pane

features designed to reduce your

C-more Micro Programming Software can be downloaded at no charge or a USB version may be purchased by ordering EA-MG-PGMSW. The software requires a USB port or Ethernet connection\* 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-inch through 15-inch touch panels).





Note: This software is used to program *C-more* Micro panels only.



C-more

free version

Note: The Ethernet port is built in to EA3-S3ML and EA3-T4CL and EA3-T6CL requires the optional EA-ECOM module for Ethernet.

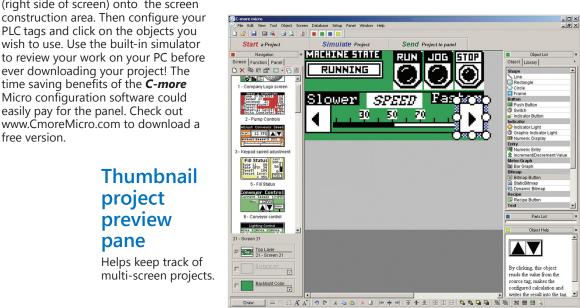
| Part Number | Panel Software / Firmware Version Required |  |
|-------------|--|--|
| EA3-S3ML-RN | 4.30 or later                              |  |
| EA3-S3ML-R  |  |  |
| EA3-S3ML    | - 4.20 or later                            |  |
| EA3-T4CL    |  |  |
| EA3-T6CL    | 3.6 or later                               |  |

## Built-in project simulator

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

### Built-in user object/ screen libraries

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



### 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:

- Windows® Operating System (See automationdirect.com for specific operating system requirements.)
- 150 MB free hard-disk space
- USB port for installing software from the USB, 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

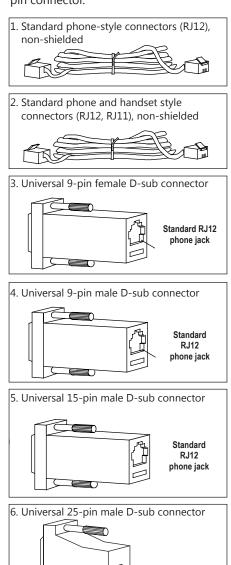
Gives you helpful information on each object

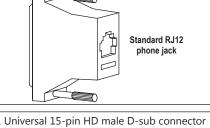
www.automationdirect.com

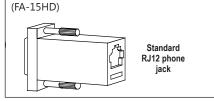
# FA-CABKIT Universal Cable Kit

1.

The table lists various devices that can be connected quickly with the universal cable kit. To determine which parts you need to use, simply use the table to find the connection you wish to make. Then match each device required for that connection with its part number. Snap the pieces together and you're ready to communicate. The following seven parts are included in the Universal Cable Kit. These parts are not sold separately, except for the <u>FA-15HD</u> high density 15pin connector.







7

## Universal cable kit

#### Items included in the universal cable kit

Device Description

- 7 ft. standard cable, 6P6C to 6P6C phone type
- 2. 6 ft. adapter cable, 6P6C to 4P4C phone type
- 3. AT connector 9-pin female to 6P6C connector
- 4. (ASCII BASIC module) 9-pin male connector to 6P6C connector
- 5. DL405 15-pin male connector to 6P6C connector
- 6. DL405 CPU and DCM 25-pin male connector to 6P6C connector
- 7. DL06, D2-250(-1) and D2-260 CPUs 15-pin HD male connector to 6P6C connector

## **Common connection examples**

## DL05, DL06, DL105, DL205, D3-350 and (D4-450 port 2) CPU connections

|       | connections<br>ection desired                            | Devices required |
|-------|--|------------------|
| 1.    | DL05/06/105/205/DL350/D4-450 to AT type computer 9-pin   | 1,3              |
| 2.    | CPU to DV-1000   | 1                |
| 3.    | CPU to DL205 or DL405 DCM                                | 1,6              |
| 4.    | CPU to DL340 CPU   | 2                |
| 5.    | CPU to ABM (DL205 only)                                  | 1,4              |
|       | , D2-250(-1), D2-260 CPU port 2 connections              | Devices required |
| 1.    | DL06/250(-1)/260 port 2 to AT type computer 9-pin        | 1,3,7            |
| 2.    | DL06/250(-1)/260 port 2 to DV-1000                       | 1,3,7            |
|       | 5 D3-232-DCU connections                                 | _/0//            |
|       | ection desired   | Devices required |
| 1.    | DCU to AT type computer 9-pin                            | 1,6,3            |
| 2.    | DCU to DL405 series DCM (requires 2 kits)                | 1,6,6            |
| 3.    | DCU to DL340 CPU   | 2,6              |
| 4.    | DCU to ABM   | 1,6,4            |
| DL30  | 5 CPU connections  |                  |
| Conne | ection desired   | Devices required |
| 1.    | DL340 CPU to AT type computer 9-pin                      | 2,3              |
| 2.    | DL340 CPU to DL405 series CPU/DCM                        | 2,6              |
| 3.    | DL340 CPU to DL240 CPU                                   | 2                |
| 4.    | DL340 to ABM   | 2,4              |
| 5.    | DL340 CPU to DCU CPU                                     | 2,6              |
|       | 5 CPU (15-pin) top port connections                      |                  |
| Conne | ection desired   | Devices required |
| 1.    | DL405 CPU to AT type computer 9-pin                      | 1,5,3            |
| 2.    | DL405 CPU to DV-1000                                     | 1,5              |
|       | 5 CPU (25-pin) bottom port connections<br>action desired | Devices required |
| 1.    | DL405 CPU to AT type computer 9-pin                      | 1,6,3            |
| 2.    | DL405 CPU to DL405 series DCM (requires 2 kits)          | 1,6,6            |
| 3.    | DL405 CPU to DL340 CPU                                   | 2,6              |
| 4.    | DL405 CPU to ABM   | 1,6,4            |
|       |  |                  |