

# C-more Micro 4-inch EA3 Touch Panel

Model EA3-T4CL **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. It is rated UL for use on a flat surface of a Type 4X enclosure (for indoor use only). EA3-T4CL is powered from a Class 2, 12-24 VDC power supply\*.

Part No. EA3-T4CL



**\$198.00**



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

## Features

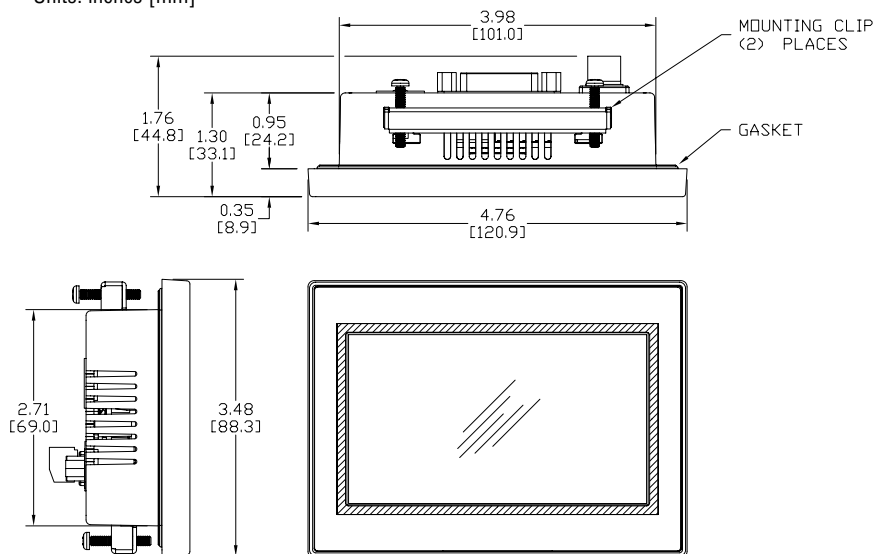
- Touch screen display
- Free downloadable programming software
- 482 x 272 pixel display (WQVGA) with up to 40 lines by 80 characters of text and graphics
- 32K colors
- Optional clear screen overlay
- 14MB memory
- Built-in USB type Micro-B programming port
- Built-in RJ45 Ethernet Port
- Built-in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



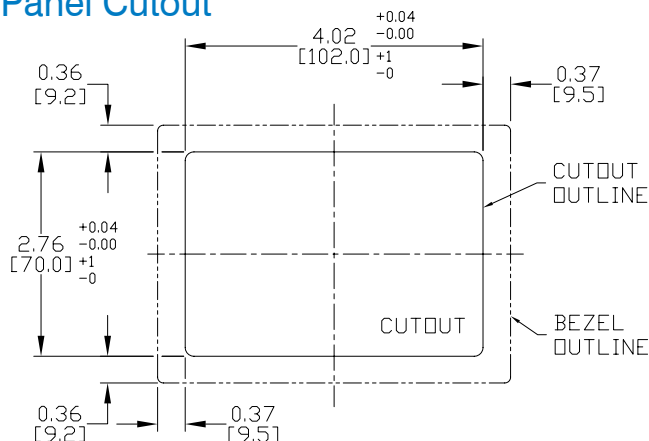
Function	Available
Ethernet	Yes (Built-in)
USB Programming Port	Yes
Serial RJ12 Port	Yes
Serial DB15 Port	Yes

## Dimensions

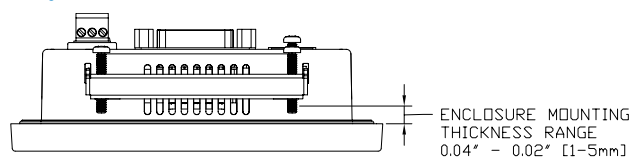
Units: inches [mm]



## Panel Cutout



## Panel Thickness



**NOTE: Model EA3-T4CL and EA1-T4CL use different panel cutouts.**

# C-more Micro 3-inch and 4-inch EA3 Panel Specifications

EA3-S3ML and EA3-T4CL Specifications		
Part Number:	EA3-S3ML	EA3-T4CL
<b>Description:</b>	128 x 64 pixel LCD display Five user defined keypad function buttons with five user defined LED indicators	480 x 272 pixel LCD display
<b>Display:</b>		
• Type	3.1" STN Monochrome with LED Backlight	4.3" TFT Graphical type 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 (Reference)	W: Typ. 150 nit G: Typ. 150 nit R: Typ. 40 nit	370 nits (typ)
• Viewing Area Size	2.78" (W) x 1.53" (H) 70.7 mm x 38.8 mm	3.89" (W) x 2.26" (H) 98.70 mm x 57.50 mm
• Active Area Size	2.62" (W) x 1.31" (H) mm 66.52 mm x 33.24 mm	3.74" (W) x 2.12" (H) mm 95.04 mm x 53.86 mm
• Contrast / Brightness	Adjusted from the panel's built-in configuration setup menu	
• Viewing Angle (Landscape Mode)	3, 6, 9 o'clock axis → 45 degrees 12 o'clock axis → 30 degrees	3, 6, 9, 12 o'clock axis → 80 degrees
<b>Backlight:</b>		
• Type	LED	
• Color	White, Red, Green (12 colors)	White
• User Replaceable	No	
<b>Touch Screen:</b>		
• Type	Analog resistive, single touch*	
• Operation	100 gram force [0.8 N] maximum	82 gram force [0.98 N] maximum
• Life	Minimum of 1,000,000 cycles	
<b>Features:</b>		
• User Memory	3MB	14MB
• 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. Minimum of 500,000 cycles	N/A
• Keypad Function Button LEDs	Each function key button includes a red LED that can be user programmed.	N/A
• Programming Port	USB 2.0 Type Micro-B Built-in Ethernet port	
• Serial Communications	RJ12 serial communications port (RS-232) 15-pin D-sub serial communications port (RS-232, RS-485 / 422).	
• Ethernet Communications	10/100 Base-T (Automatic Negotiation)	
<b>Screen Objects</b>		
• Functional Devices	Pushbutton, Switch, Indicator Button, Indicator Light, Graphic Indicator Light, Numeric Display, Numeric Entry, Inc/Dec Value, Bar Graph, Bitmap Button, Static Bitmap, Dynamic Bitmap, Recipe Button, Static Text, Lookup Text, Dynamic Text, Screen Change Pushbutton, 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	
<b>*Note: The Touchscreen is designed to respond to a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.</b>		
<b>C-more Micro EA3-S3ML and EA3-T4CL panel specifications continued on next page.</b>		

# C-more Micro 3-inch and 4-inch EA3 Panel Specifications

<b>EA3-S6ML and EA1-T4CL Specifications (cont'd)</b>		
<b>Part Number:</b>	<b>EA3-S3ML</b>	<b>EA3-T4CL</b>
<b>Electrical:</b>		
<b>• Input Power</b>	RJ12 port to any AutomationDirect PLC RJ12 port USB Micro-B port to PC 10.2 - 26.4 VDC; Class 2 or SELV (Safety Extra-Low Voltage) or Limited Energy Circuit power supply	USB Micro-B port to PC 10.2 - 26.4 VDC; Class 2 or SELV (Safety Extra-Low Voltage) or Limited Energy Circuit power supply
<b>• Power Consumption</b>	1.05W (RJ12) 2W (USB) 3W (External Power Supply)	2.5W (USB) 4W (External Power Supply)
<b>• Maximum Inrush Current</b>	20A for 240µs (DC power supply)	22A for 240µs (DC power supply)
<b>• Acceptable External Power Drop Duration</b>	Maximum 1ms	
<b>Environmental:</b>		
<b>• Operating Temperature</b>	0 to 50 °C (32 to 122 °F); IEC 60068-2-14 (Test Nb, Thermal Shock)	
<b>• Storage Temperature</b>	-20 to +60 °C (-4 to +140 °F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)	
<b>• Humidity</b>	5–95% RH (non-condensing)	
<b>• Environmental Air</b>	For use in Pollution Degree 2 environment, no corrosive gases permitted	
<b>• Housing Material</b>	ABS Plastic	ABS-GF20
<b>• Gasket Material</b>	Silicone Rubber	
<b>• Overlay Sheet Material</b>	PET	
<b>• Vibration</b>	IEC60068-2-6 (Test Fc)	
<b>• Shock</b>	IEC60068-2-27 (Test Ea)	
<b>• Altitude</b>	Up to 2000m (6562ft)	
<b>• Noise Immunity</b>	(EN61131-2) EN61000-4-2 (ESD), EN61000-4-3 (RFI) EN61000-4-4 (FTB) EN61000-4-5 (Serge) EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity)  (Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm) Impulse 1000V @ 1µs pulse	
<b>• Enclosure</b>	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (not tested by UL) (When mounted correctly)	
<b>• Agency Approvals</b>	CE (EN61131-2), UL61010, CUL Canadian C22.2, UL E157382, RoHS (2011/65/EU) To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.	
<b>Physical</b>		
<b>• Enclosure Mounting Thickness Range</b>	0.04" – 0.2" [1 – 5 mm]	
<b>• Mounting Clip Screw Torque Range</b>	21 – 28 oz-in [0.15 – 0.20 Nm]	
<b>• Weight</b>	6.7 oz. (190g)	7.76 oz. (220g)

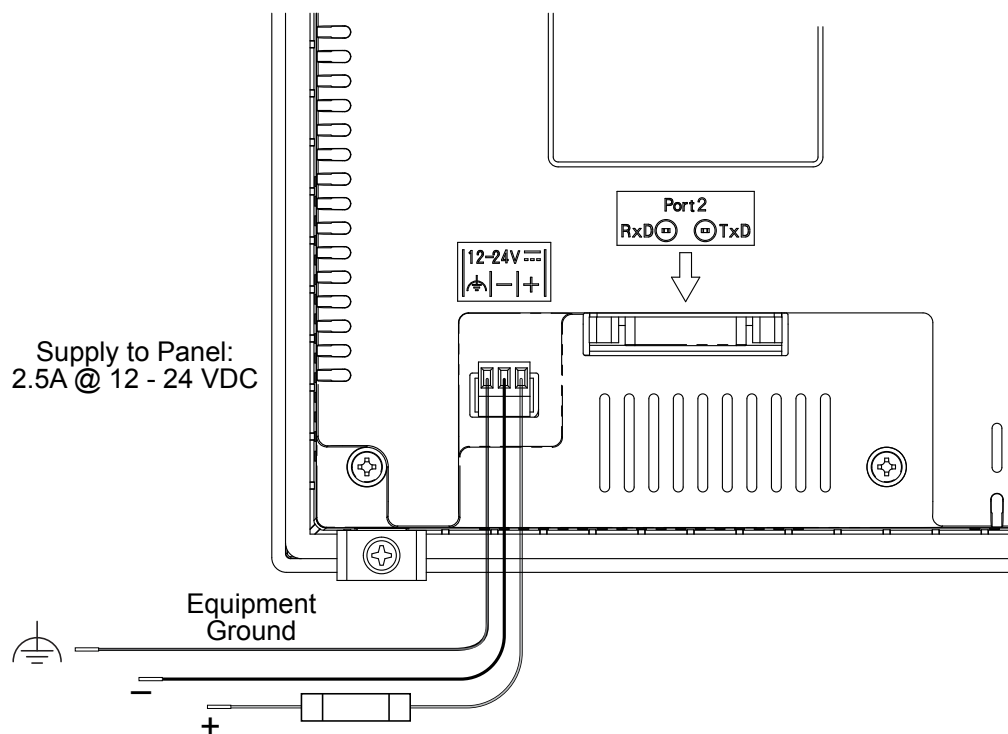
# C-more Micro EA3 Series PLC Drivers

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	Mitsubishi FX	
Modicon Modbus RTU	Mitsubishi Q & QnA	
Entivity Modbus RTU	Omron Host Link (C200 Adapter, C500)	
	Omron FINS Serial (CJ1, CS1)	
	Siemens PPI (S7-200 CPU)	
	AutomationDirect SOLO Temperature Controller	
	AutomationDirect GS Drives	
<p>* Ethernet port is built in to EA3-S3ML and EA3-T4CL. EA3-T6CL, EA3-T8CL and EA3-T10CL require the optional EA-ECOM module for Ethernet.</p> <p>** BX-P-SER2-RJ12 is required</p>		

# C-more Micro EA3 Series Power Connection Wiring

## C-more Micro EA3 Series typical wiring diagram

**C-more** Micro EA3 series panels are powered by a Class 2, 2.5 Amp @ 12-24 VDC power source in normal operation. Recommended power supply is AutomationDirect part number PSC-24-030.



# C-more Micro EA3 Series PLC Connections

## Cabling requirements

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

- D0-CBL — connects to Productivity Series, Do-more / BRX\*, CLICK, DL05, DL06, DL105, DL205, D3-350 and D4-450 phone jack.

**\*BX-P-SER2-RJ12 is required**

EA3-T6CL, EA3-T8CL and EA3-T10CL cannot be powered from a PLC.

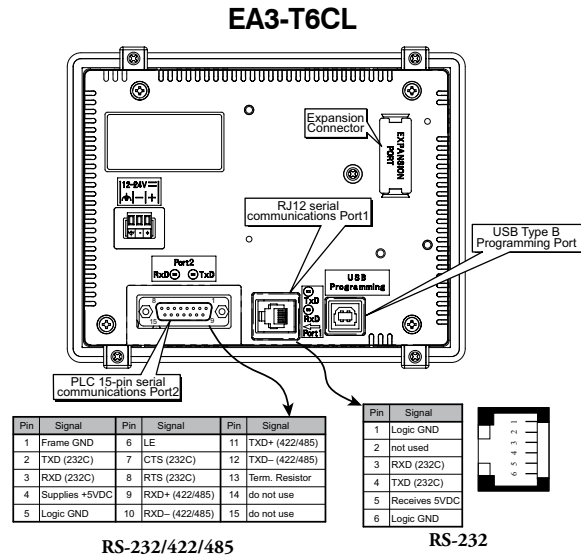
The **C-more** EA3 series Micro panels can communicate through a built-in 15-pin serial port (Port2) via RS-232, RS-422 and RS-485 using these cables.

- EA-2CBL — connects to Productivity Series, Do-more / BRX\*, CLICK, DL05, DL105, DL205, D3-350 and D4-450 phone jack.
- EA-2CBL-1 — connects to D2-250, D250-1, D2-260, DL06 VGA connector.

**\*BX-P-SER2-RJ12 is required**

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

## Communication Ports

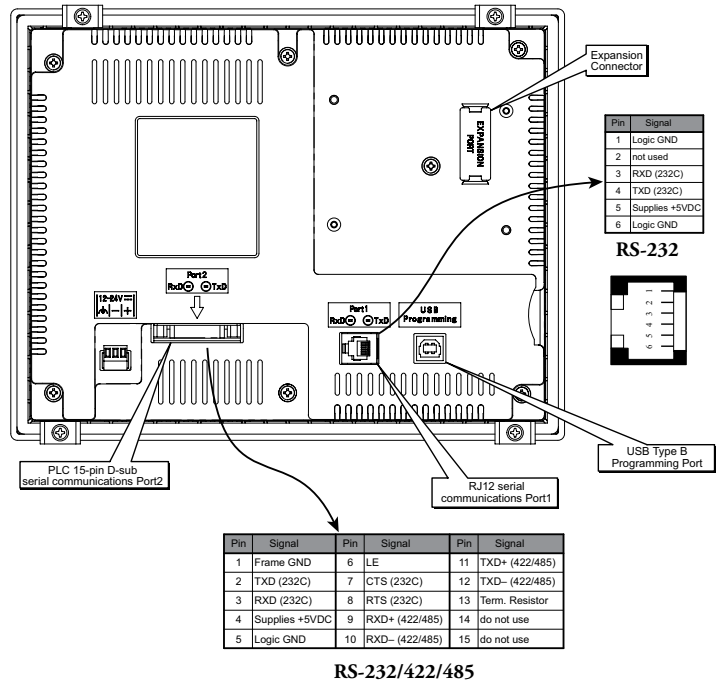


## Drivers for your Controller

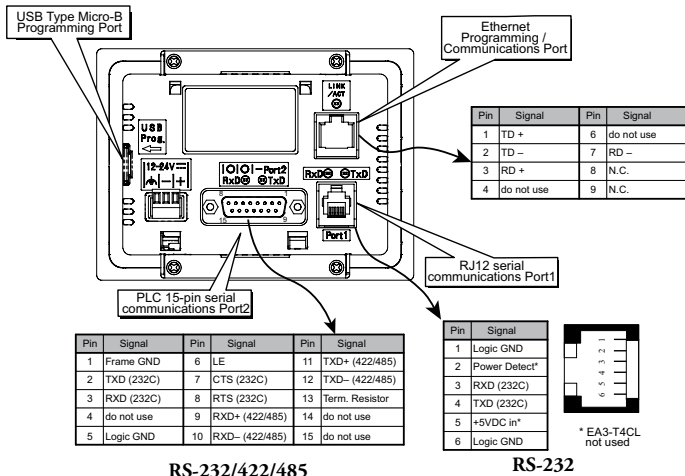
- AutomationDirect Productivity Series – serial / Ethernet\*
- AutomationDirect Do-more / BRX – serial / Ethernet\*
- AutomationDirect CLICK (Modbus)– serial / Ethernet\*
- **Direct**LOGIC K-sequence, **Direct**LOGIC DirectNET, **Direct**LOGIC Modbus (Koyo Addressing) **Direct**LOGIC ECOM Ethernet\*
- Modbus RTU  
Modbus TCP/IP\*
- 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

\* Ethernet port is built in to EA3-S3ML and EA3-T4CL. EA3-T6CL, EA3-T8CL and EA3-T10CL require the optional EA-ECOM module for Ethernet.

## EA3-T8CL & EA3-T10CL



## EA3-S3ML & EA3-T4CL



# C-more Micro EA3 Panel Accessories

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

The EA-ADPTR-4 adapter plugs into the 15-pin serial port on the rear of **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.

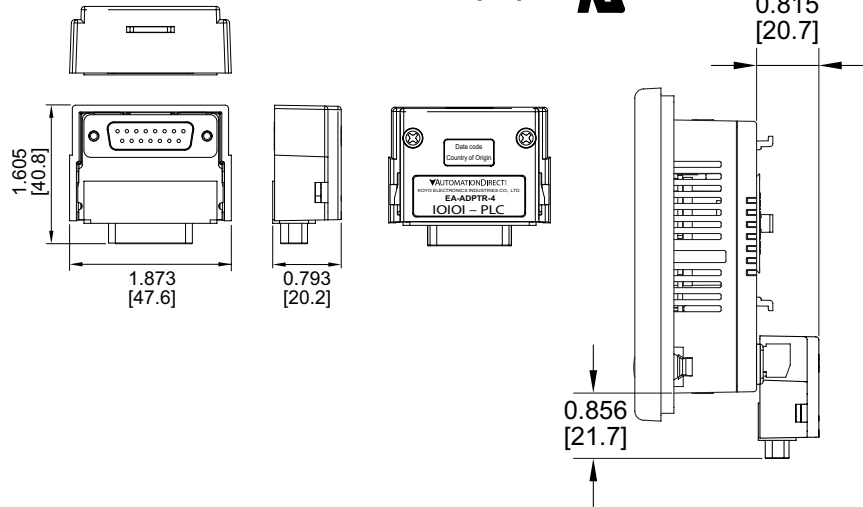
**Part No.**  
**EA-ADPTR-4**



**\$39.00**

### Dimensions

Units: inches [mm]



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

The EA-COMCON-3 adapter plugs into the 15-pin serial port on the rear of 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.

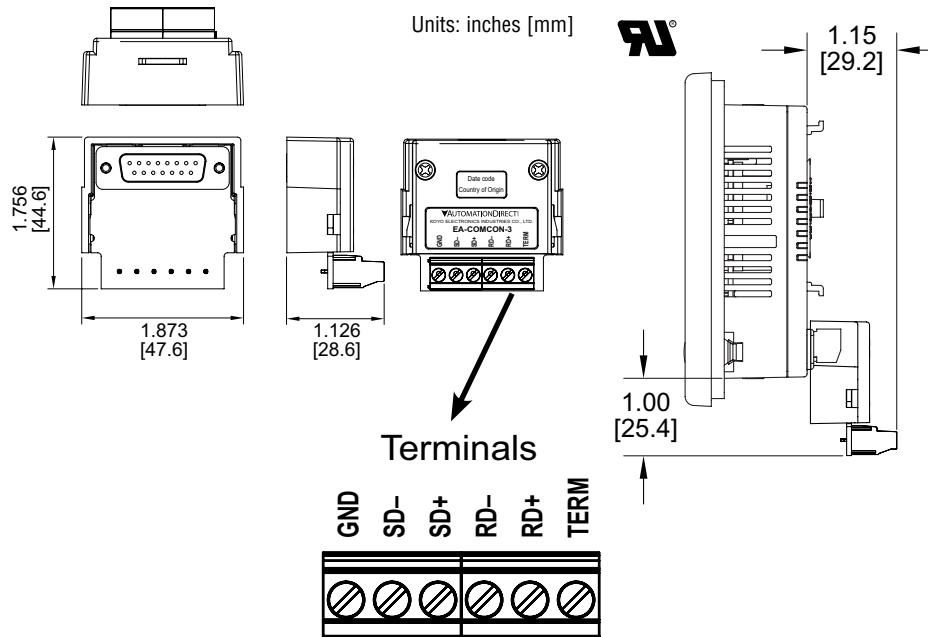
**Part No.**  
**EA-COMCON-3**



**\$42.00**

### Dimensions

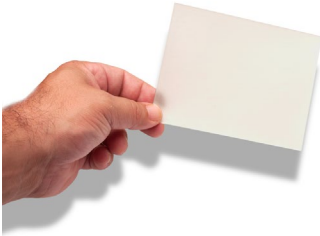
Units: inches [mm]



# 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. EA-MG-COV-CL contains 5 clear screen overlays. All other packages contain 3 clear screen overlays.



**Part No. EA-MG-COV-CL**  
**\$35.50**

**Part No. EA-4-COV3**  
**\$33.50**

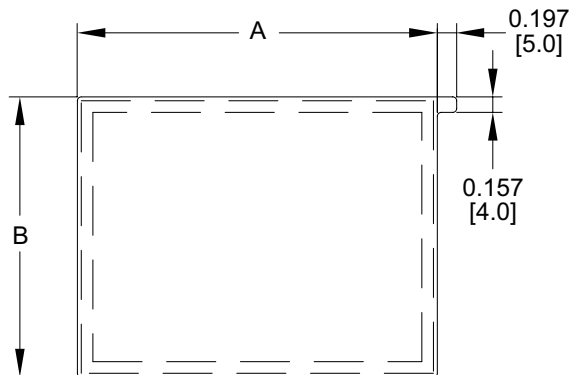
**Part No. EA-6-COV2**  
**\$37.00**

**Part No. EA-8-COV2**  
**\$40.00**

**Part No. EA-10-COV2**  
**\$45.50**

## Dimensions

Units: inches [mm]



Part Number	Dimensions - inch [mm]	
	A	B
EA-MG-COV-CL	3.13 [79.4]	1.75 [44.4]
EA-4-COV3	4.15 [105.5]	2.52 [64.0]
EA-6-COV2	4.91 [124.8]	3.80 [96.4]
EA-8-COV2	7.32 [185.8]	5.44 [138.2]
EA-10-COV2	8.91 [226.2]	6.61 [168.0]

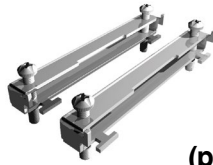


# C-more Micro 3-inch and 4-inch EA3 Panel Replacement Parts

Replacement parts at a glance:

Part Number	Description	Price
<b>EA-MG-S3ML-BRK</b>	Panel mounting brackets, replacement. Package of 2. For use with <b>C-more</b> Micro 3in and EA3-T4CL HMI's.	\$17.50
<b>EA-MG-DC-CON</b>	DC 3-terminal power connector, replacement. Package of 5. For use with all <b>C-more</b> Micro 4in, 6in, 8in and 10in panels, and power adapters EA-MG-P1 and EA-MG-SP1.	\$14.00
<b>EA-MG-S3ML-GSK</b>	Panel mounting gasket, replacement. For use with 3in <b>C-more</b> Micro panels.	\$12.00
<b>EA-4-GSK</b>	Panel Mounting Gasket: replacement, for C-more Micro EA3-T4CL 4in HMI's	\$8.50
<b>EA-MG-S3ML-FKL</b>	Function key label insert, replacement. Package of 10. For use with <b>C-more</b> Micro 3in panels. (5) blank labels (5) landscape F1-F5 label included.	\$9.75

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



(pk of 2)

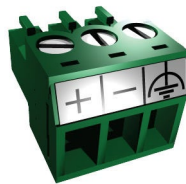
**3" Panel Gasket**  
Part No. EA-MG-S3ML-GSK



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

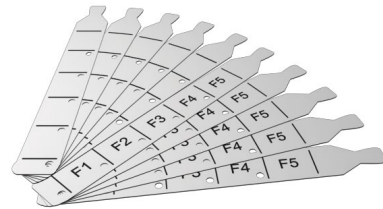


**DC Power Connector**  
Part No. EA-MG-DC-CON



(pk of 5)

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



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

# C-more Micro Communication Cables and Cable Kits

Cable Description	Cable Part Number	Price
<b>Cables used with RJ-12 RS-232 serial Port1</b>		
AutomationDirect Productivity Series, Do-more / BRX*, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C) 3.66m (12ft) cable length	<b>D0-CBL</b>	\$19.00
DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C) Use with D0-CBL cable.	<b>FA-15HD</b>	\$8.00
DirectLOGIC PLC 15-pin D-sub port, DL405 (RS-232C) Use with D0-CBL cable.	<b>FA-CABKIT</b>	\$40.00
DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C) 2m (6.56 ft) cable length	<b>OP-3CBL-1</b>	\$6.00
<b>Cables used with 15-pin RS-232/422/485 serial Port2</b>		
AutomationDirect Productivity Series, Do-more / BRX*, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C) 3m (9.8 ft) cable length	<b>EA-2CBL</b>	\$20.00
DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C) 3m (9.8 ft) cable length	<b>EA-2CBL-1</b>	\$20.00
DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C). 3m (9.8 ft) cable length	<b>EA-3CBL</b>	\$20.00
DirectLOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C). 3m (9.8 ft) cable length	<b>EA-4CBL-1</b>	\$20.00
DirectLOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCM's (RS-232C). 3m (9.8 ft) cable length	<b>EA-4CBL-2</b>	\$20.00
Allen-Bradley MicroLogix 1000, 1100, 1200, 1400 & 1500 (RS-232C) 3m (9.8 ft) cable length	<b>EA-MLOGIX-CBL</b>	\$30.00
Allen-Bradley SLC 5-03/04/05, ControlLogix, CompactLogix, FlexLogix DF1 port (RS-232C) 3m (9.8 ft) cable length	<b>EA-SLC-232-CBL</b>	\$20.00
Allen-Bradley PLC-5 DF1 port (RS-232C) 3m (9.8 ft) cable length	<b>EA-PLC5-232-CBL</b>	\$20.00
Allen-Bradley MicroLogix, SLC-5-01/02/03, PLC5 DH485 port (RS-232C) 3m (9.8 ft) cable length	<b>EA-DH485-CBL</b>	\$20.00
GE 90/30 and 90/70, Micro 90, VersaMax Micro (Port 2) 15-pin D-sub port (RS-422A) 3m (9.8 ft) cable length	<b>EA-90-30-CBL</b>	\$20.00
mitsubishi FX Series 25-pin port (RS-422A) 3m (9.8 ft) cable length	<b>EA-MITSU-CBL</b>	\$20.00
mitsubishi FX Series 8-pin mini-DIN (RS-422A) 3m (9.8 ft) cable length	<b>EA-MITSU-CBL-1</b>	\$20.00
OMRON Host Link C200 Adapter, C500 (RS-232C) 3m (9.8 ft) cable length	<b>EA-OMRON-CBL</b>	\$20.00
<b>* BX-P-SER2-RJ12 is required</b>		
<b>EA3-T8CL and EA3-T10CL cannot be powered by a PLC and cannot communicate with a PLC through the USB Programming Port.</b>		
<b>Note: Adding the optional EA-ECOM module allows communication via an Ethernet connection (EA3 series only).</b>		



EA-DH485-CBL



EA-90-30-CBL



EA-MITSU-CBL



EA-MITSU-CBL-1



EA-OMRON-CBL

# C-more Micro Programming Software

## FREE software!

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



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

Part Number	Panel Software / Firmware Version Required
EA1-S3ML	1.0 or later
EA1-S3ML-N	
EA1-S3MLW	1.5 or later
EA1-S3MLW-N	
EA1-T4CL	3.0 or later
EA1-T6CL	2.5 or later
EA3-S3ML	4.20 or later
EA3-T4CL	
EA3-T6CL	3.6 or later
EA3-T8CL	3.5 or later
EA3-T10CL	

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

## Built-in project simulator

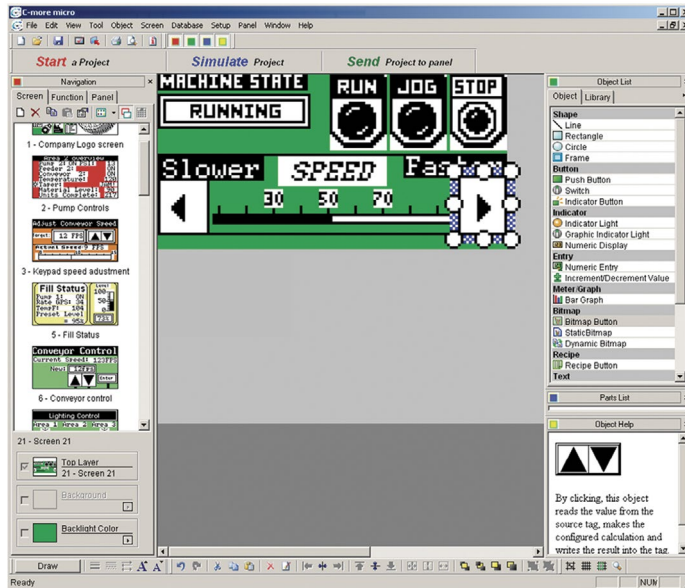
- Runs your project on your PC
- Test all of your screens before downloading
- Time savings pays for the panel
- Simulate function keys and keypad bezel

## Built-in user object/ screen libraries

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

## Thumbnail project preview pane

Helps keep track of multi-screen projects.



## Scrolling object selection window

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

## PC requirements

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

- Operating System - Windows® XP Professional Edition Service Pack 2, Windows® 7 (32 or 64 bit), Windows 8 (32 or 64 bit) or Windows 10
- 150 MB free hard-disk space
- CD-ROM or DVD drive for installing software from the CD, or internet access to download free programming software
- USB port to use with the correct Programming Cable Assembly for project transfer from the programming software to the panel

## Scrolling help window

Gives you helpful information on each object