C-more Operator Panels Overview

Getting started

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

- *C-more* HMI 6in, 7in wide, 8in, 10in, 10in wide, 12in, 15in or <u>EA9-RHMI</u>
- **C-more** Programming Software, p/n <u>EA9-PGMSW</u>
- **C-more** programming cable, USB or Ethernet
- 12-24 VDC switching power supply or the optional *C-more* AC Power Adapter, p/n <u>EA-AC</u>
- Personal Computer to run *C-more* programming software
- PLC communications cable (serial or Ethernet) to connect the *C-more* HMI to your controller

Part	Description	Price
Number	Boothption	
<u>EA9-T6CL-R</u>	C-more EA9 series touch screen HMI, 6in color TFT LCD, analog resistive, 320 x 240 pixel, QVGA, LED backlight, (1) serial, (2) USB ports and (1) memory card slot.	\$718.00
<u>EA9-T6CL</u>	C-more EA9 series touch screen HMI, 6in color TFT LCD, analog resistive, 320 x 240 pixel, QVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$994.00
<u>EA9-T7CL-R</u>	C-more EA9 series touch screen HMI, 7in color TFT LCD, analog resistive, widescreen, 800 x 480 pixel, WVGA, LED backlight, (1) serial, (1) Ethernet, (2) USB ports and (1) memory card slot.	\$688.00
<u>EA9-T7CL</u>	C-more EA9 series touch screen HMI, 7in color TFT LCD, analog resistive, widescreen, 800 x 480 pixel, WVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$794.00
<u>EA9-T8CL</u>	C-more EA9 series touch screen HMI, 8in color TFT LCD, analog resistive, 800 x 600 pixel, SVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$1,383.00
<u>EA9-T10CL</u>	C-more EA9 series touch screen HMI, 10in color TFT LCD, analog resistive, 800 x 600 pixel, SVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$1,778.00
<u>EA9-T10WCL</u>	C-more EA9 series touch screen HMI, 10in color TFT LCD, analog resistive, widescreen, 1024 x 600 pixel, WSVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$986.00
<u>EA9-T12CL</u>	C-more EA9 series touch screen HMI, 12in color TFT LCD, analog resistive, 800 x 600 pixel, SVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (2) memory card slots, (1) HDMI video out and (1) audio line out.	\$1,545.00
<u>EA9-T15CL-R</u>	C-more EA9 series touch screen HMI, 15in color TFT LCD, analog resistive, 1024 x 768 pixel, XGA, LED backlight, (1) serial, (1) Ethernet, (2) USB ports and (2) memory card slots.	\$1,830.00
<u>EA9-T15CL</u>	C-more EA9 series touch screen HMI, 15in color TFT LCD, analog resistive, 1024 x 768 pixel, XGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (2) memory card slots, (1) HDMI video out and (1) audio line out.	\$2,803.00
<u>EA9-RHMI</u>	C-more EA9 series headless HMI, (2) serial, (1) Ethernet and (2) USB ports, (1) HDMI audio/video out and (1) memory card slot.	\$521.00
EA9-PGMSW	C-more Windows programming software, USB or free download. For use with C-more EA9 series touch panels. Requires USB or Ethernet connection to touch panel.	\$13.00 on USB, or FREE download
<u>USB-CBL-AB3</u>	AutomationDirect programming cable, USB A to USB B, 3ft cable length. For use with C-more HMIs, Do-more and Productivity series CPUs and most USB devices.	\$12.00
<u>USB-CBL-AB6</u>	AutomationDirect programming cable, USB A to USB B, 6ft cable length. For use with <i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.	\$16.00
<u>USB-CBL-AB10</u>	AutomationDirect programming cable, USB A to USB B, 10ft cable length. For use with C-more HMIs, Do-more and Productivity series CPUs and most USB devices.	\$36.50
<u>USB-CBL-AB15</u>	AutomationDirect programming cable, USB A to USB B, 15ft cable length. For use with C-more HMIs, Do-more and Productivity series CPUs and most USB devices.	\$42.50

1-800-633-0405

C-more Selection Guide & Specifications

Part Number EA9-RHM Price 552:10 Display No Display Weight 0.98 by Segig Project Memory 5286 Number of Screens Up to 999 screens - limited by opidet memory Realtime Clock Realtime obck hull into parel, backed up for 30 days at 25°C Calendar - Month / Day / Year Year on Year Year on Year on Year Year on Year on Year on Year on Year on Year on Year Year Year Year On Year Year Year Year Year Year Year Year	Specification	EA9 Headless HMI	
Display No Display Weight 0.98 (258) Project Memory 82MB Number of Screens Up to 999 screens – limited by project memory Realtime Clock Reatmend dock hull into panel, backed up for 30 days of 25°C Calendar – Month / Day / Year Number of Screens Serial Port 1 15-pin D-sub female – R63232C, R5-422485 Sarial Port 2 3-wire terminal block – R5-485 USB Port – Type B UBS 20 High seven (400 Mbps) / yea B - Download/Program Max cable length - 15 ft. USB 20 High seven (400 Mbps) / yea B - Download/Program USB Port – Type A USB 20 High seven (400 Mbps) / yea B - Download/Program USB Port – Type A USB 20 High seven (400 Mbps) / yea B - Download/Program Supported Touch Screen Compatible with AutomationDirect Alats Monitors. See the 500m At 500C Ethernet Port - EA-COM Ethernet Port - EA-COM Explay / Download Streen Scient Stoff Port High Streen (400 Mbps) / Yea C So Card Stot 1 slot supported Trava XGB (50), max 32GB (50) High XGB HDMI Supported Resolutions 1 slot support Nara XGB (50) High XGB Supply Power 10 2-64 VDC Cless 2, Use Cless2 at ad SEV (Sold) Chigh	Part Number		
Weight 0.59 b [289g] Project Memory BXMB Number of Screens Ub 993 exees- limited by project memory Reativine Clock Realitine clock built into panel, backad up for 30 days at 25°C Calendar - Month / Day / Year Yes - monthly deviation Bbac (Reference) Serial Port 1 1 Serial Port 2 3-wire terminal block. R64-485 Serial Port 2 3-wire terminal block. R64-485 USB 20 High speed (480 Mips) Type 8 - Domined/Progen Mas calles inspin - 15 ft. USB Port - Type A USB 2.0 High speed (480 Mips) Type 7 - 16 ft. Supported Touch Screen Compatible with AutomationDired Abas Months. Som At 50°C Supported Touch Screen Compatible with AutomationDired Abas Months. Som At 50°C Ethernet Port 10/100 Base-T, auto MDIMDHX Ethernet Port - EA-ECOM Expansion Module Audio supported through HDMI connection Mic In (Future) NA SO Card Slot 1 slot support mar 208 (SD) Roltz HDMI Video Out HDMI Type A Port Supply Power 10/2-26 4 VDC Class 2, Use Class 2 and SELV (Safty Extra-Low Voltag) Circuit ALEO, Net 200 (SD) Roltz T20 AV 00 (Class 2,	Price	\$521.00	
Project Memory 85MB Number of Screens Up to 990 creat-initial by prijekt memory Realitine Clock Realitine Clock Serial Port 1 15-pin D-sub female - R6232C, R5-422485 Serial Port 2 3-wite terminal block - R5-485 USB Port - Type B USB 20 High speed (480 Mkps) Type 8 - Downlead/Program USB Port - Type A USB 20 High speed (480 Mkps) Type 8 - Downlead/Program USB Port - Type A USB 20 High speed (480 Mkps) Type 8 - Downlead/Program USB Port - Type A USB 20 High speed (480 Mkps) Type 8 - Downlead/Program USB Port - Type A USB 20 High speed (480 Mkps) Type 4 - Downlead/Program Supported Touch Screen Compatible with Automation/Direct Alses Kinge 100 Mc Resistive and pCsp Ethermet Port 10100 Base 7-tau Mol/MULX Ethermet Port - EA-ECOM Audio Line Out Audio supported frough HDMI connection Mic In (Future) NA SD Card Slot 1 statsuport max 2GB (50),	Display	No Display	
Number of Screens Up to 999 screens Imited by project memory Reattime Clock Reattime tock built into panel, backde up for 30% est 25°C Sorial Port 1 15-pin D-sub female – RS232C, RS-422486 Sorial Port 2 3/wise terminal block – RS-485 USB Port – Type B USB 20 His posed (480 Mbrs) Type 8 - Downlos GPProgram Max cable length - 15 H USB Port – Type A USB 20 His posed (480 Mbrs) Type 8 - Downlos GPProgram Max cable length - 15 H USB Port – Type A USB 20 His posed (480 Mbrs) Type 8 - Downlos GPProgram Max cable length - 15 H USB Port – Type A USB 20 His posed (480 Mbrs) Type 8 - Downlos GPProgram Max cable length - 15 H USB Port – Type A USB 20 His posed (480 Mbrs) Type 8 - Downlos GPProgram Max cable length - 15 H Supported Touch Screen Compatible with Automator/Direct Allas Montons. See the LR-AHMU user manual for more compatible touchscreen monitors Ethernet Port - ELO ^m Single Touch Resistive GAM, EETI eclaus Single Touch Resistive and pCap Externot Port - EACOM Externot Port - EACOM So Card Slot 1 slot support max 268 (50), max 3268 (50Hc) HDMI Videe Out NA Supply Power 10/2.04 A VDC Cless 2, Use Cless2 and SEU (Sletty Ean -Low Videga) (Crout and Limited Energy Crout (LEC), R	Weight	0.59 lb [269g]	
Reatime Clock Realime dock built into panel, backed up for 30 days at 25°C Calendar - Month / Day / Year Yes - monthy deviation 60sec (Reference) Serial Port 1 15-pin D-sub female - R52320, R5-422485 Sorial Port 2 3-wire terminal block - R5-485 USB Port - Type B USB 20 High speed (460 Mbps) Type 8 - formode/Program Max cable length - 15 ft. USB Port - Type A USB 20 High speed (460 Mbps) Type 8 - formode/Program Max cable length - 15 ft. Supported Touch Screen ELO® Single Touch Resides Single Touch Resides and pCap Compatible with Automaton/Dreck Allas Monitors. See the EA-RHMI user manual for more compatible touchecreen monitors Ethernet Port - Expansion Module EA-ECOM Audio Line Out Audio supported through HDMI connection Mic In (Future) NiA SD Card Slot 1 slot support max 268 (50), max 3268 (50HC) HDMI Video Out HDMI Supported Resolutions Supply Power 102-26.4 VDC Class 2, Use Class2 and SUK (Salety Ether.ow Vidage) Circuit and Limited Energy Circuit (LEC), Reverse Polarly Protected Supply Power 102-26.4 VDC Class 2, Use Class2 and SUK (Salety Ether.ow Vidage) Circuit and Limited Energy Circuit (LEC), Reverse Polarly Protected Mittude 0 to 50°C (32 to 122 *[7]; Maximum surroundaris depastona), LEC (60068-24 14 (1st Na, Thermal Stock)	Project Memory		
Calendar – Month / Day / Year Yes - monthly deviation 60sec (Reference) Sorial Port 1 15-pin D-sub female – R5322, 455 Sorial Port 2 3-wire terminal block – R5485 USB Port – Type B USB 2.0 High speed (480 Mbps) Type A - Download/Program Mar cable length – 15 ft. Supported Touch Screen Compatible with AutomationDirect Allas Monitors. See the EA-RHM user manual for more compatible touch screen Compatible with AutomationDirect Allas Monitors. See the EA-RHM user manual for more compatible touchscreen monitors Ethernet Port - Expansion Module EA-COM Audio Line Out Audio supported through HDM connection Mic robit Module NA Supported Resolutions NA Stor Stot 1 stot support max 208 (SD INC) HDMI Supported Resolutions NA Supply Power 10:226.4 VDC Class 2, Use Class2 and SU (SD IC) HDMI Supported Resolutions 10:226.4 VDC Class 2, Use Class2 and SU (SD IC) 10:04.6 (21 VDC Class 2, Use Class 2, Use Class2 2 (14 VDC Class 2, VDC Class 2, Use Class2 2 (14 VDC Class 2, VDC Class 2, VD (VD) (04 VC)	Number of Screens	Up to 999 screens – limited by project memory	
Serial Port 1 15-pin D-sub-female – RS232C, RS 422/485 Serial Port 2 3-wire terminal block – RS245 USB Port – Type B USB 2014 ph speed (480 Mbps) Type B - Download/Program Max cable length - 15 ft. USB Port – Type A USB 2014 ph speed (480 Mbps) Type B - Tot Bord solve options Max cable length - 15 ft. Supported Touch Screen Compatible with Automation/Direct Allas Monitors. See the EARMILuser manual for more compatible touchscreen monitors. Ethernet Port Ethernet Port 10/100 Base-T, auto MDI/MDI-X Ethernet Port - Expansion Module EAAECOM So Card Stot 1 slot supported Touch Screen SO Card Stot 1 slot supported Touch (Stope) HDMI Video Out NA Supply Power 10/2-26.4 VDC Class 2, Use Class 2 and SEU (Stope) MIMI Supported Resolutions 10/2-26.4 VDC Class 2, Use Class 2 and SEU (Stope) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protection Supply Power 10/2-26.4 VDC Class 2, Use Class 2 and SEU (Stope) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protection Viditatione 0.80 A 20 (VC) (EC 60088-2.2 (There Abin, Portection) Power Consumption 10/2-26.4 VDC Class 2, Use Class 2 and SEU (Stope) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protection Operating Tomperature	Realtime Clock	Realtime clock built into panel, backed up for 30 days at 25°C	
Serial Port 2 3-wire terminal block – RS-485 USB Port – Type B USB 2.0 High speed (480 Mbps) Type A - Download/Program Max cable length - 151 ft. USB Port – Type A USB 2.0 High speed (480 Mbps) Type A - TUSB device options Max acble length - 151 ft. Supported Touch Screen ELO® Sign Touch Resistive(SML PET Galas Sign) Function Resistive and pCap Compatible with AutomationDirect Atlas Monitors. See the EA-RHM user manual for more compatible touchscreen monitors Ethernet Port - Expansion Module EA-REMU Huser manual for more compatible touchscreen monitors Audio Line Out Audio supported Hough HDMI connection Mic in (Future) NA SD Card Stot 1 slot support and 200 (SD) (SD) (SD) HDMI Video Out HDMI Type A Port HDMI Supported Resolutions 10/2-26.4 VDC Class 2. Use Class 2 and SEU (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Pointly Poteted Supply Power 10/2-26.4 VDC Class 2. Use Class 2 and SEU (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Pointly Poteted Power Consumption 10/2-26.4 VDC Class 2. Use Class 2. And SEU (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Pointly Poteted Storage Temperature 0 to 50°C (22 to 122 °F); Maximum surrounding an integrin to FIMM displays Coperating Temperature 0 to 50°C (21 to 1	Calendar – Month / Day / Year	Yes - monthly deviation 60sec (Reference)	
USB Port - Type B USB 2.0 High speed (480 Mtps) Type A - for USB evice options Max cable length - 15 ft. USB Port - Type A USB 2.0 High speed (480 Mtps) Type A - for USB device options Max cable length - 15 ft. Supported Touch Screen ELO ^w Single Touch Resistive3AW, EETI 6 Class Single Touch Resistive and pCap Compatible with AutomationDirect Alls Monitors. See the E-ARHM user manual for more compatible touchscreen monitors Ethernet Port ELO ^w Single Touch Resistive3AW, EETI 6 Class Single Touch Resistive and pCap Compatible with AutomationDirect Alls Monitors. See the E-ARHM user manual for more compatible touchscreen monitors Ethernet Port - ELO ^w Single Touch Resistive3AW, EETI 6 Class Single Touch Resistive and pCap Compatible with AutomationDirect Alls Monitors. See the E-ARHM user manual for more compatible touchscreen monitors Ethernet Port - ELO ^w Single Touch Resistive3AW, EETI 6 Class Single Touch Resistive and pCap Compatible with Automation Port All Monitors See the DAM (DMI) Mice Infe Uture) NA SD Card Stot 1 slot support max 2G8 (SD), max 32G8 (SDHC) HDMI Supported Resolutions To22 K 400 (Class 2) Use Class 2, Use Class 2 and EUV (Safety Extra-ton HOMI displays Supply Power 10.2-26.4 VDC Class 2, Use Class 2 and EUV (Safety Extra-ton HOMI displays Reverse Polarly Protocclad 12.0 W Power Consumption 1.0.0 A (B 2VDC) 1.0.0 A (B 2VDC) <t< th=""><th>Serial Port 1</th><th>15-pin D-sub female – RS232C, RS-422/485</th></t<>	Serial Port 1	15-pin D-sub female – RS232C, RS-422/485	
USB Port - Type B Max cable length USB 20 Flips speed (400 Mpc) Type A 15 ft. USB 20 Flips speed (400 Mpc) Type A 10 USB device options Max cable length - 168 Bus Power - Less than 500mA at 5VOC Supported Touch Screen ELO ^{IN} Single Touch Resistencia SMI, EET I cablax. Single Touch Resisten and ICap Compatible with AutomationDirect Alias Monitors. See the EA-RHM user manual for more compatible touchscreen monitors Ethernet Port ELO ^{IN} Single Touch Resistencia SMI, EET I cablax. Single Touch Resistencia MMICA Ethernet Port - Expansion Module EA-ECOM Audio Line Out Audio supported through HDMI connection Mic In (Future) NA SD Card Stot 1 slot support max 2GB (SD) Hrz HDMI Video Out HDMI Type A Port HDMI Supported Resolutions 120 4 200 (VcA) 60Hz 120 4 YRB (XCA) 80Hz 120 4 226 (VC) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz 120 4 YRB (XCA) 80Hz Supply Power 10 2-264 VDC Class 2, Use	Serial Port 2	3-wire terminal block – RS-485	
Image: Construction of the specific of	USB Port – Type B		
USB Port - Type A Max cable length - 158 Supported Touch Screen ELO™ Single Touch Resistive RAW. EETI edas Single Touch Resistive and pCap Compatible with AutomationDirect Atlas Monitors. See the EA-RHMU user manual for more compatible fouchscreen monitors Ethernet Port 10/100 Base-T, auto MDI/MDI-X Ethernet Port - Expansion Module Audio Line Out Audio supported through HDMI connection Mic In (Future) N/A SD Card Stot 1 slot support max 268 (SDHC) HDMI Video Out HDMI Type A Port HDMI Video Out HDMI Type A Port HDMI Supported Resolutions 102-26.4 VDC Class 2, Use Class2 and SEV (Vadio Ghtz 102-26.4 VDC Class 2, Use Class2 and SEV (Vadio Future) Supply Power 102-26.4 VDC Class 2, Use Class2 and SEV (Vadio Future) Power Consumption 102-26.4 VDC Class 2, Use Class2 and SEV (Vadio Future) Internal Fuse (non-replaceable) 40.4 Altitude Up to 2000 (6582th) Operating Temperature 0 to 50°C (32 to 122 °F); Maximu surrounding at temperature rating: 50°C (122°F) IEC 60068-2.1 (Test A, Cold) IEC 60068-2.1 (Test A, Cold) IEC 60068-2.1 (Test A, Cold) IEC 600068-2.1 (Test A, Cold) IEC 6			
Supported Touch Screen ELO [™] Single Touch Resistive SAW, EET eclairs Single Touch Resistive and Cap Compatible with AutomationDirect Atlas Monitors. See the EA-RHML user manual for more compatible touchscreen monitors Ethernet Port EA-ECOM Ethernet Port - Expansion Module EA-ECOM Audio Line Out Audio Supported through HDMI connection Mic In (Future) N/A SD Card Slot 1 slot support max 268 (SD), max 32GB (SDHC) HDMI Video Out HDM Type A Port HDMI Supported Resolutions 10/24 x 788 (KGA) 60Hz 1280 x 780 (VGA) 60Hz Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 1.20 X VC Attitude Up to 2000 (662t) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) Etc 60068-241 (Test N, Thermal Shock) - (EC 60068-241 (Test N, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (ENG 1004-43 (RFI); 10/W (Both2F)) Obser Consumption For use in Pollution Degree 2 environment, no corrosive gases permitted (EC 60068-24 (Test N, Thermal Shock)) <t< th=""><th>USB Port – Type A</th><th>Max cable length - 15ft</th></t<>	USB Port – Type A	Max cable length - 15ft	
Supported Forch Screen Compatible with AutomationDirect Atlas Monitors. See the EA-RHMI user manual for more compatible touchscreen monitors Ethernet Port 10/100 Base-T, auto MDIMDLX Ethernet Port - Expansion Module EA-ECOM Audio Line Out Audio supported Intrody HDMI connection Mic In (Future) NA SD Card Slot 1 slot support max 2G8 (SD), max 32G8 (SDHC) HDMI Video Out HDMI Type A Port 640 x 480 (VGA) 60Hz 720 x 480 (SD) 60Hz 1024 x 720 (HD) 60Hz 1280 x 720 (HD) 60Hz 1024 x 720 (HD) 60Hz 120 x 480 (SD) 60Hz 102 x 720 (HD) 60Hz 120 W Power Consumption 102 x 64 VDC Class 2, Use Class2 and SELV (Safety Exture Jav Vidage) Clouit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 1.00 A@ 12VDC Altitude Up to 2000m (6562th) Operating Temperature -20 to 60°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test N), Thermal Shock) IEC 60068-2-14 (Test N), Thermal Shock) Humidity 595% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corosive gases permitted (EN1000-4-			
Ethernet Port - Expansion Module EA-ECOM Audio Line Out Audio supported through HDMI connection Mic In (Future) NA SD Card Slot 1 slot support max 2GB (SD), max 32GB (SDHC) HDMI Video Out HDMI Type A Port 640 x 480 (VGA) 60Hz T20 x 480 (SD) 60Hz 1204 x 720 (HD) 60Hz T20 x 480 (SD) 60Hz 1204 x 720 (HD) 60Hz T20 x 480 (SD) 60Hz 1204 x 720 (HD) 60Hz T20 x 480 (SD) 60Hz 1204 x 720 (HD) 60Hz T20 x 480 (SD) 60Hz 1200 x 720 (HD) 60Hz T20 x 480 (SD) 60Hz 1200 x 720 (HD) 60Hz T20 x 480 (SD) 60Hz 9 wer 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-tow Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected 9 wer Consumption 1.02 & Q TOC 1 netrnal Fuse (non-replaceable) 4.0 A 4 Altitude Up to 2000m (6562t) Operating Temperature Q to 50°C (32 to 122 "F); Maximum stronding air temperature rating: 50°C (122 "F) IEC 60088-2:14 (Test No, Thermal Shock) IEC 60088-2:14 (Test No, Thermal Shock) IEC 60088-2:14 (Test No, Thermal Shock) IEC 60088-2:14 (Test No, Thermal Shock) IEC 60008-2:2	Supported Touch Screen		
Expansion Module EXECUM Audio Line Out Audio supported through HDMI connection Mic In (Future) N/A SD Card Slot 1 slot support max 2GB (SD), max 32GB (SDHC) HDMI Video Out Chard Slot HDMI Supported Resolutions 640 x 490 (VGA) 60Hz 720 x 720 (HD) 60Hz HDMI Supported Resolutions 102-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected 9 weer Consumption 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected 1 (2 0 W 10.0 A@ 12'DC 9 ower Consumption 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected 1 (2 0 W 10.0 A@ 12'DC 9 ower Consumption 10.2-26.4 VDC Class 2, Use Class2 2, Use Class2 2, Use Class2 1 (1 0 A@ 12'DC 10.0 A@ 12'DC 9 ower Consumption 10.0 A@ 12'C + Class 0 to 50°C (32 to 12'F) [Keixinum surrounding air temperature rating: 50°C (122'F) 1 (EC 600068-2-14 (Test Nb, T	Ethernet Port	10/100 Base-T, auto MDI/MDI-X	
Expansion Module Internal Fuse (non-replaceable) Audio Line Out Audio suported trongh HDMI connection Mic In (Future) NA SD Card Slot 1 slot support max 2GB (SD), max 32GB (SDHC) HDMI Video Out HDMI Type A Port 640 x 480 (VGA) 60Hz 720 x 480 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 780 (VGA) 60Hz 120 x 720 (VB) 60Hz 120 x 780 (VGA) 60Hz 90 wer 102-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-tow Vallage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 1.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 0.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 0.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 0.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 1.00 Ag 12/DC 1.	Ethernet Port -	EA.ECOM	
Mic In (Future) N/A SD Card Slot 1 slot support max 2GB (SD), max 32GB (SDHC) HDMI Video Out HDMI Type A Port 640 x 480 (VGA) 60Hz 720 x 480 (SD) 60Hz 1024 x 768 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 1280 x 720 (XGA) 60Hz 9 weer Consumption 10.2-66 4 VDC Class 2, Use Class 2, use Class 2, and SEU (XGA) 60Hz 120 W 100 A Q 12VDC 120 W 100 A Q 00 (5652th) 0 to 50°C (32 to 122 °F): Maximum surrounding air temperature rating: 50°C (122 °F)	Expansion Module		
SD Card Slot 1 slot support max 2GB (SD), max 32GB (SDHC) HDMI Video Out HDMI Type A Port FADMI Supported Resolutions 720 x 480 (VGA) 60Hz 1024 x 768 (XGA) 60Hz 1024 x 768 (XGA) 60Hz 1024 x 768 (XGA) 60Hz 1024 x 768 (XGA) 60Hz 1024 x 768 (XGA) 60Hz 102-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 1.02-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Internal Fuse (non-replaceable) 1.02 W Power Consumption 0.50 A @ 24VDC Internal Fuse (non-replaceable) 4.0 A Attitude Up to 2000m (6562tt) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC6 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC6 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC6 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC6 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC6 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC6 60068-2-14 (Test Nb, Thermal Shock) -2	Audio Line Out	Audio supported through HDMI connection	
HDMI Video Out HDMI Type A Port HDMI Supported Resolutions 640 x 480 (VGA) 60Hz 720 x 480 (SD) 60Hz 1024 x 768 (KGA) 60Hz 1024 x 768 (KGA) 60Hz 1024 x 768 (KGA) 60Hz 1020 x 720 (HD) 60Hz Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 1.02-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Internal Fuse (non-replaceable) 4.0 A Altitude 0 to 50°C (32 to 122 °F) Maximum surrounding air temperature rating: 50°C (122°F) Operating Temperature 0 to 50°C (32 to 122 °F) Maximum surrounding air temperature rating: 50°C (122°F) Storage Temperature 0 to 50°C (32 to 122 °F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) 1EC 60068-2-14 (Test Nb, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN0100-4-24 (ESD): 4V/ (Contact Discharge) 2V/4V/4V/8V/ (Air Discharge) Noise Immunity EN61000-4-3 (SFP): 10V/m (MoHz-16Hz, 2)W/m (14GHz-2.0GHz) 1V/m (2.0Hz-2.7GHz)	Mic In (Future)		
640 x 480 (VGA) 60Hz 720 x 480 (VGA) 60Hz 720 x 480 (VGA) 60Hz 720 x 480 (VGA) 60Hz 1024 x 788 (XGA) 60Hz 1280 x 720 (HD) 60Hz 1280 x 720 (HD) 60Hz With automatic negotiation function for HDMI displays Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SEU (Start) Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 10.0 A @ 12/DC 10.1 A @ 12/DC 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC 60068-2-14 (Test Nb, Tocid) IEC 60068-2-14 (Test Nb, Tocid) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61100-4-2 (ESD): 4kV (Contact Discharge) 2kV/4k/08kV (kin Discharge) 2kV/4k/08kV (kin Discharge) 2kV/4k/08kV (kin Discharge) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4k/08kV (kin Discharge) EN61000-4-4 (FED): 2kV,	SD Card Slot	1 slot support max 2GB (SD), max 32GB (SDHC)	
HDMI Supported Resolutions 1720 x 480 (SD) 60Hz 1024 x 768 (XGA) 60Hz 1024 x 768 (XGA) 60Hz 1280 x 720 (HD) 60Hz 1280 x 720 (HD) 60Hz Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 12.0 W Power Consumption 1.00 A (@) 12/DC Internal Fuse (non-replaceable) 4.0 A Altitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122 °F) Elsc 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC 60068-2-14 (Test Nb, Thermal Shock) IEC 60068-2-14 (Test Nb, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61100-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-4 (FEB): 2kV, Jostive/negative, 5kHz(DC Power Port) EN61000-4-4 (FEB): 2kV, Jostive/negative, 5kHz(DC Power Port)	HDMI Video Out		
HDMI Supported Resolutions 1024 x 768 (XCÅ) 60Hz 1280 x 720 (HD) 60Hz With automatic negotiation function for HDMI displays Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 10.0 A @ 12VDC 1.00 A @ 12VDC 0.50 A @ 24VDC Internal Fuse (non-replaceable) 4.0 A Altitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) Storage Temperature 1EC 60068-2-14 (Test Nb, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test			
Image: Construction of the second s	HDMI Supported Resolutions	1024 x 768 (XGA) 60Hz	
Supply Power 10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), Reverse Polarity Protected Power Consumption 12.0 W Internal Fuse (non-replaceable) 0.0 A @ 12VDC Altitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C (-4 to 140°F) IEC 60068-2-14 (Test Nb, Thermal Shock) -20 to 60°C - (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-2 (Test Ab, Cold) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/kkV/kW (Air Discharge) 2kV/kV/K			
Supply Power Reverse Polarity Protected Reverse Polarity Protected 12.0 W 1.00 A @ 12VDC 1.00 A @ 12VDC Internal Fuse (non-replaceable) 4.0 A Altitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) Storage Temperature 1EC 60068-2-14 (Test Ab, Cold) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment (EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-4 (FTB): 2kV, positive/negativ	Our to Dever		
Power Consumption 1.00 A @ 12VDC 0.50 A @ 24VDC 0.50 A @ 24VDC Internal Fuse (non-replaceable) 4.0 A Attitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) [EC 60068-2-14 (Test Nb, Thermal Shock) Storage Temperature -20 to 60°C (-4 to 140°F) Elec 60068-2-1 (Test Ab, Cold) [EC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) Noise Immunity EN61000-4-4 (FTB): 2kV, positive/negative, 5kHz(DC Power Port)	Supply Power	Reverse Polarity Protected	
0.50 A @ 24VDC Internal Fuse (non-replaceable) 4.0 A Altitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) storage Temperature IEC 60068-2-14 (Test Nb, Thermal Shock) IEC 60068-2-14 (Test Nb, Cold) IEC 60068-2-14 (Test Nb, Cold) IEC 60068-2-14 (Test Nb, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61100-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FEB): 2kV, positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line	Power Consumption		
Altitude Up to 2000m (6562ft) Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) Storage Temperature -20 to 60°C (-4 to 140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-1 (Test Ab, Cold) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80Hz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) Noise Immunity EN61000-4-4 (FTB): 2kV, positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line			
Operating Temperature 0 to 50°C (32 to 122 °F); Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock) Storage Temperature -20 to 60°C (-4 to 140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-1 (Test Ab, Cold) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV, positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line	Internal Fuse (non-replaceable)		
Operating Temperature IEC 60068-2-14 (Test Nb, Thermal Shock) 20 to 60°C (-4 to 140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (FTB): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV, positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line	Altitude		
Storage Temperature -20 to 60°C (-4 to 140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-1 (Test Ab, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV, positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line	Operating Temperature		
Storage remperature IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) Noise Immunity EN61000-4-4 (FTB): 2kV , positive/negative, 5kHz(DC Power Port)			
IEC 60068-2-14 (Test Na, Thermal Shock) Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted (EN61131-2) (EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) 2kV/4kV/8kV (Air Discharge) 100/mm (2.0GHz-2.7GHz) Noise Immunity EN61000-4-4 (FTB): 2kV (positive/negative, 5kHz(DC Power Port)	Storage Temperature		
Humidity 5-95% RH (non-condensing) Environment For use in Pollution Degree 2 environment, no corrosive gases permitted			
(EN61131-2) EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line	Humidity		
EN61000-4-2 (ESD): 4kV (Contact Discharge) 2kV/4kV/8kV (Air Discharge) EN61000-4-3 (EFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line	Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted	
2kV/4kV/8kV (Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line			
EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz) 1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) EN61000-4-5 (Serge): 0.5kV line to line			
EN61000-4-4 (FTB): 2kV ,positive/negative, 5kHz(DC Power Port) Noise Immunity EN61000-4-5 (Serge): 0.5kV line to line		EN61000-4-3 (RFI): 10V/m (80MHz-1GHz), 3V/m (1.4GHz-2.0GHz)	
Noise Immunity EN61000-4-5 (Serge): 0.5kV line to line		1V/m (2.0GHz-2.7GHz) EN61000-4-4 (FTR): 2kV, positive/penative_5kHz/DC Power Port)	
0.5kV/line to earth	Noise Immunity	EN61000-4-5 (Serge): 0.5kV line to line	
EN61000-4-6 (Conducted): 10V, 0.15MHz - 80MHz		0.5kV line to earth EN61000-4-6 (Conducted): 10V_0.15MHz - 80MHz	
EN61000-4-8 (Power frequency magnetic field immunity): 30A/m		EN61000-4-8 (Power frequency magnetic field immunity): 30A/m	
(Local test) RFI, (145MHz, 440MHz 10W @10cm)			
Impulse 1000V @ 1µs pulse			
Withstand Voltage 1000VAC, 1min. (FG to Power supply)	Withstand Voltage	1000VAC, 1min. (FG to Power supply)	
Insulation Resistance > 10M ohm @ 500VDC (FG to Power supply)	Insulation Resistance		
IEC60068-2-6 (Test Fc)	Vibrotion		
Vibration 5-9Hz: 3.5mm amplitude, 9-150Hz 1.0G 10 sweep cycles per axis on each of 3 mutually perpendicular axes	VIDration		
IEC60068-2-27 (Test Ea)	Shock	IEC60068-2-27 (Test Ea)	
15G peak, 11ms duration, 5 shocks in each direction per axis, on 5 mutually perpendicular axes			
Emission EN55011 Class A (Radiated RF emission)	Emission		
UL61010, E157382 Agency Approvals CE (EN61131-2), RoHS (2011/65/EU)	Agency Approvals		
CUL Canadian C22.2			

www.automationdirect.com

1-800-633-0405 **C-more EA9-RHMI Headless HMI**

EA9-RHMI



\$521.00

Dimensions

Units: inches [mm] (3) 0.17 [4.2] OVAL HOLES 0.75 FOR #8 [M4] SCREWS [19.1] Æ, \oplus EA9 CPU RUN 🗍 0 USER 🗍 ിട 0 0 EXPANSION PORT 围^{RUI}STO RXD 🗐 USB TXD 5.74 6.12 [155.5] [145.8] 0 Ο -<u>P1-C1-C1-C1-C1</u>-1.67 3.99 [42.5] [101.4]

C-more EA9 series headless HMI supports HD 1280 x 720 (60Hz) pixel screen resolution HDMI output, 800MHz CPU, 12-24 VDC powered, includes (2) serial ports, USB 2.0 Type A and B ports and one Ethernet port. Supports (1) SD memory card. Compatible with EA9-PGMSW programming software version 6.50 or later.

Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Audio/Video Out	Yes
Expansion Module	Yes

4.29 [109.0]

Features

- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Expansion Module Support
- Use <u>EA-ECOM</u> for second Ethernet Port
- Remote Internet access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12–24 VDC powered
- HDMI audio/video out
- 82MB project memory
- Data logging

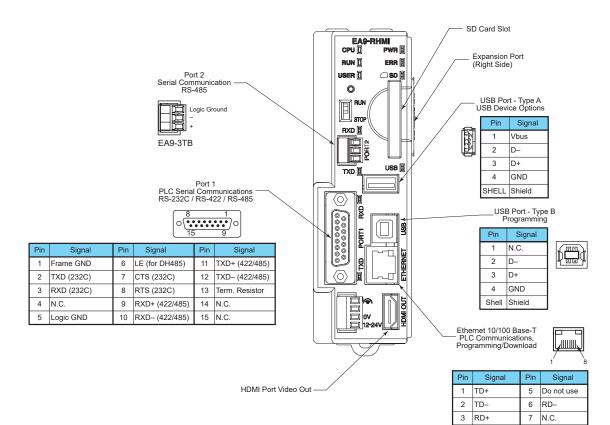
5.31

[134.9]

- 0 to 50°C [32 to 122°F] operating temperature range
- DIN rail mountable
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

See our website www.AutomationDirect.com for complete engineering drawings.

C-more EA9-RHMI Communication Ports



Ethernet Port

The Ethernet port has several uses:

- Download program to panel
- Communicate to PLCs/PCs
- Send e-mail
- Access FTP server
- Act as a Webserver (Secure HTTPs)
- Remote Internet access

The Ethernet port has an RJ-45 8-wire modular connector with green and yellow LEDs.

- The yellow LED indicates network speed off for a 10 Mbps connection and illuminated for a 100 Mbps connection.
- The green LED indicates link status and illuminates when a link is established.

Expansion Port

The expansion port supports the <u>EA-ECOM</u> module to provide a second Ethernet Port.

USB Port B

Program **C-more** via the USB programming port. It's fast and easy, with no baud rate settings, parity, or stop bits to worry about. We stock standard USB cables for your convenience. USB Port B can be used to upload or download projects to and from a PC.

USB Port A*

The Universal Serial Bus (USB) Port A can be used to connect various USB HID (Human Input Device) devices to the panel, such as the following:

- USB touchscreen (ELO[™] Single Touch Resistive/SAW, EETI eGalax Single Touch Resistive and pCap touchscreens)
- USB mouse
- USB keyboard
- USB flash drives (<u>USB-FLASH</u>)
- USB barcode scanner
- USB card scanner

C-more can log data to the USB flash drive as well as load projects to the panel from the pen drive. You can also back up project files and panel firmware.

* 500mA maximum current available. Powered USB hub may be required for some devices

Serial Port

8 N.C

do not use

4

Port 1 - Connect to your serial controller network via Port 1. Port 1 is a 15-pin port that supports RS-232 or RS-422/485.

Port 2 - Connect your RS-485 network via Port 2. Port 2 is provided with a 3-wire removable terminal block.

HDMI Out Port

<u>EA9-RHMI</u> includes an HDMI Type A port to provide video / audio output to a projector or remote monitor. Supported resolutions are...

- 640 x 480 (VGA) 60Hz
- 720 x 480 (SD) 60Hz
- 1024 x 768 (XGA) 60Hz
- 1280 x 720 (HD) 60Hz

For the latest prices, please check AutomationDirect.com.

1-800-633-0405 For the latest prices, please check AutomationDirect.com **C-more Communication Protocols & Cables**

DI O 5		Compatibility Table	Dut
PLC Family	Miorol oniv 1000 11	Model	Protocols
	IMICTOLOGIX 1000, 11 SLC 5-/01/02/03	100, 1200, 1400, 1500,	DH485/AIC/AIC+
	MicroLogix 1000, 1100, 1200, 1400 and 1500		
	SLC 5-/03/04/05 ControlLogix™, CompactLogix™, FlexLogix™		DF1 Half Duplex; DF1 Full Duplex
	PLC-5		DF1 Full Duplex
	ControlLogix, Comp	actLogix, FlexLogix - Tag	DF1 Half Duplex; DF1 Full Duplex
	Based	actLogix, FlexLogix -	
	Generic I/O Messac	aina	EtherNet/IP Server
Allen-Bradley	ControlLogix, Comp	actLogix, FlexLogix - Tag	
	Micrologix 1100, 14	00 & SLC5/05, all via native	EtherNet/IP Client
	Ethernet port Microl ogix 1000_11	100, 1200, 1400,1500 &	
	SLC 5-03/04/05, all	via ENI Adapter	
	Micro 800 series		Modbus RTU
			Modbus TCP
	Micro 800 series - T	ag Based	DF1 Full Duplex
			EtherNet/IP Client
Modbus RTU	Modbus RTU device		Modbus RTU
Modbus TCP/IF			Modbus TCP/IP
GE		90, VersaMax Micro	SNPX
0L	90/30, Rx3i		SRTP Ethernet
	FX Series	04011 00511	FX Direct
Mitsubishi	Q02, Q02H, Q06H,	Q12H, Q25H	Q CPU
	Q, QnA Serial Q, QnA Ethernet		QnA Serial QnA Ethernet
	C200 Adapter, C500	1	Host Link
Omron	CJ1/CS1 Serial, CJ		FINS
Modicon	984 CPU, Quantum	113 CPU, AEG Modicon Micro	Modbus RTU
woulcon		<u>1-xx, 411-xx, 512-xx, 612-xx</u>	
Siemens	S7-200 CPU, RS-48		PPI
	S7-1500; Ethernet	0 CPU, S7-400, S7-1200 CPU,	Ethernet ISO over TCP
Productivity	all		Productivity Serial
Series			Productivity Ethernet
Do-more	all		Do-more Serial
20 11010			Do-more Ethernet
CLICK	all		Modbus (CLICK addressing)
			Modbus TCP (CLICK addressing)
		all	K-Sequence DirectNET
	DL05/DL06		Modbus (Koyo addressing)
		H0-ECOM/H0-ECOM100	Direct LOGIC Ethernet
	DL105	all	K-Sequence
		D2-230	K-Sequence
		D2-240	K-Sequence
		DZ-Z+0	DirectNET
		D2-250/D2-250-1/D2-260/	K-Sequence
	DL205	D2-250/D2-250-1/D2-260/ D2-262	DirectNET
			Modbus (Koyo addressing)
		D2-240/D2-250-1/D2-260 using D2-DCM	DirectNET Modbus (Koyo addressing)
		H2-ECOM/H2-ECOM100	Direct LOGIC Ethernet
		D3-330/330P	
		(Requires the use of a Data Communications Unit) D3-340	DirectNET
			DirectNET
Direct LOGIC	DI 205	00-040	K-Sequence
	DL305	D3-350	DirectNET
			Modbus (Koyo addressing)
		D3-350 using D3-DCM	DirectNET
			Modbus (Koyo addressing)
		D4-430	K-Sequence
	DL405		DirectNET
		D4-440	K-Sequence
			DirectNET K Sequence
		D4-450/D4-454	K-Sequence DirectNET
			Modbus (Koyo addressing)
			DirectNET
		All with D4-DCM	Modbus (Koyo addressing)
	H4-ECOM/H4-ECOM100 H2-WinPLC (Think & Do) Live V5.2 or later and		Direct LOGIC Ethernet
			Think & Do Modbus RTU
	Studio any version H2-WinPLC (Think & Do) Live V5.5.1 or later and Studio V7.2.1 or later		(serial port) Think & Do Modbus TCP/IP
	Studio V7.2.1 or later		(Ethernet port)

Cable Description	Cable Part Number	Price
AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ12, shielded, 9.8ft/3m	EA-2CBL	\$31.00
cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and AutomationDirect PLCs with RJ12 ports. AutomationDirect communication cable, 15-pin		
male D-sub to 15-pin D-sub HD15 male, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and a DL06, D2-250(-1), D2-260 or D2-262 (bottom port) CPU.	<u>EA-2CBL-1</u>	\$31.50
AutomationDirect communication cable, 15-pin male D-sub to 4-pin RJ11, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and a D3-340 CPU top or bottom port.	<u>EA-3CBL</u>	Retired
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> Micro panel and a DL405 (top port) CPU.	<u>EA-4CBL-1</u>	\$31.00
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> Micro panel and a D2-DCM, D3-232- DCU, D3-350 (bottom port) or DL405 (bottom port) CPU.	<u>EA-4CBL-2</u>	\$32.00
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 Micro panel and an Allen-Bradley Micrologix CPU.	<u>EA-MLOGIX-CBL</u>	\$47.50
AutomationDirect communication cable, 15-pin male D-sub to 9-pin female D-sub, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Allen-Bradley SLC 5/03, 5/04 or 5/05 CPU with DF-1 port.	EA-SLC-232-CBL	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Allen-Bradley PLC-5 CPU with a DF1 port.	<u>EA-PLC5-232-CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ45, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Allen-Bradley SLC 5/01, 5/02 or 5/03 CPU with a DH485 port cable.	<u>EA-DH485-CBL</u>	\$30.50
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> Micro and GE Fanuc Series 90/30 or 90/70 serial port.	<u>EA-90-30-CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and a Mitsubishi FX Series CPU.	<u>EA-MITSU-CBL</u>	\$31.00
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 Micro panel and a Mitsubishi FX Series CPU.	<u>EA-MITSU-CBL-1</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, shielded, 3m/9.8ft cable length. For use with C-more or C-more Micro panel and an Omron C200 or C500 CPU.	EA-OMRON-CBL	\$31.00

Example Cables:



www.automationdirect.com

1-800-633-0405

C-more Computer Programming Connections

Using the C-more Programming Software EA9-PGMSW for project development, the HMI can be connected to a PC (personal computer) in one of several ways:

- Connect a USB Programming Cable such as (USB-CBL-AB15) from a USB port type A on the PC to the USB type B programming port on the C-more HMI. The USB connection is for direct connection only and does not support USB hubs.
- Connect the C-more HMI to a PC with a Cat5 Ethernet cable via an Ethernet switch. Multiple C-more HMIs can be programmed in this configuration.

Following are the minimum system requirements for running *C-more* Programming Software, p/n EA9-PGMSW, on a PC:

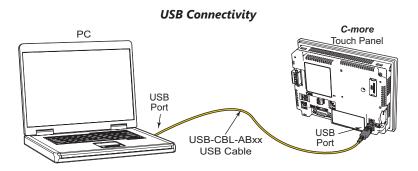
- USB or Ethernet connection to HMI (cables sold separately).
- Windows operating system see automationdirect.com for specific operating system requirements.



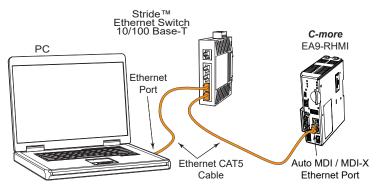
NOTE: Regarding Ethernet access to a C-more HMI.

If you intend to take advantage of the methods of remote access to the HMI, including the Webserver (Secure HTTPs), PC remote access, FTP, iPhone or iPad app, you need to consider the security exposure in order to minimize the risks to your process and your C-more HMI.

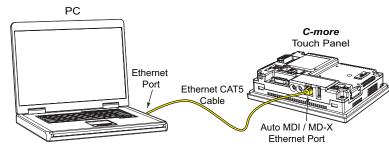
Security measures may include password protection, changing the ports exposed on your network, including a VPN in your network, and other methods. Security should always be carefully evaluated for each installation.



Ethernet Connectivity via a Hub or Switch



Ethernet Direct Connection





Part No. USB-CBL-ABxx

USB Programming Cables			
Part Number	Length	Price	
USB-CBL-AB3	3 feet	\$12.00	
USB-CBL-AB6	6 feet	\$16.00	
USB-CBL-AB10	10 feet	\$36.50	
USB-CBL-AB15	15 feet	\$42.50	

Stride[®] **Ethernet Switch**



Message is sent out only from the port connected to destination device

Message in from



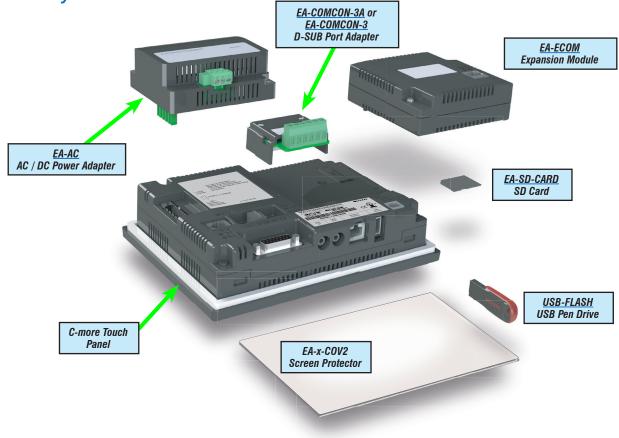
C-more Accessories

Accessories

C-more touch panels can be enhanced with the accessories below:

Part Number	Description	Price
EA-AC	C-more AC/DC power adapter, 24 VDC, 1.5A. For use with C-more EA7 and EA9 series touch panels.	\$98.00
EA-6-COV2	C-more screen protector, non-glare, 6in. Package of 3. For use with C-more and C-more Micro 6in HMIs.	\$49.50
EA-7-COV2	C-more screen protector, non-glare, 7in. Package of 3. For use with C-more 7in HMIs.	\$51.00
EA-8-COV2	C-more screen protector, non-glare, 8in. Package of 3. For use with C-more and C-more Micro 8in HMIs.	\$53.00
EA-10-COV2	C-more Micro screen protector, non-glare, 10in. Package of 3. For use with C-more EA9-T10CL and C-more Micro EA3- T10CL HMIs.	
EA-10W-COV2	C-more screen protector, non-glare, 10in. Package of 3. For use with C-more EA9-T10WCL widescreen HMI.	\$59.00
EA-12-COV2	C-more screen protector, non-glare, 12in. Package of 3. For use with C-more 12in HMIs.	\$61.00
EA-15-COV2	C-more screen protector, non-glare, 15in. Package of 3. For use with C-more 15in HMIs.	\$72.00
EA-ECOM	C-more communication expansion module, (1) RJ45 10/100 Mbps Ethernet port. For use with C-more Micro EA3 series 6in, 8in and 10in panels and all C-more HMIs except CM5 series and -R models.	\$73.00
EA-COMCON-3	C-more DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, right angle cable entry. For use with C-more Micro EA1 series 4in and 6in HMIs, C-more Micro EA3 series 3in, 4in, and 6in HMIs, C-more EA9 6in and 7in HMIs and C-more CM5 series 4in HMI.	\$55.00
EA-COMCON-3A	C-more Micro DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, straight cable entry. For use with C-more Micro EA1 3in with EA1-MG-SP1, EA3 8in and 10in HMIs, C-more EA9 8in, 10in, 12in and 15in and CM5 7in, 10in, 12in, 15in and 22in HMIs.	\$30.50
EA-SD-CARD	C-more industrial memory card, 2GB SD. For use with all products with SD memory card slot.	\$130.00
USB-FLASH	SanDisk USB Flash drive, 32GB.	\$25.50

Accessory Locations



C-more Accessories

SD Card

EA-SD-CARD



SD memory card for non-volatile storage, 2GB industrial grade, 70° C maximum operating temperature makes it suitable for data logging in industrial applications. Recommended for *C-more* EA9 series. The EA-SD-CARD utilizes SLC technology so it is the fastest option for writing and storing data. If logged data is saved to external memory, AutomationDirect recommends using an EA-SD-CARD. EA-SD-CARD may be used with all products with an SD card slot.

SLC Flash memory utilized by EA-SD-CARD has the advantage of being the most accurate flash memory type when reading and writing data. SLC Flash has the longest lifespan of flash types and can operate in a broader temperature range than other types.

EA-SD-CARD with SLC Flash memory is recommended for industrial workloads that require heavy read / write cycles.

EA-SD-CARD Specifications			
Operating Temperature	0 to 70°C (32 to 158°F)		
Humidity	20 to 85% (non-condensing)		
Capacity	2GB		
Speed Modes	High-Speed Normal-Speed		
Interface	SD Memory Card Specification Ver. 3.0		
Speed Class	Class 6		

USB Flash Drive

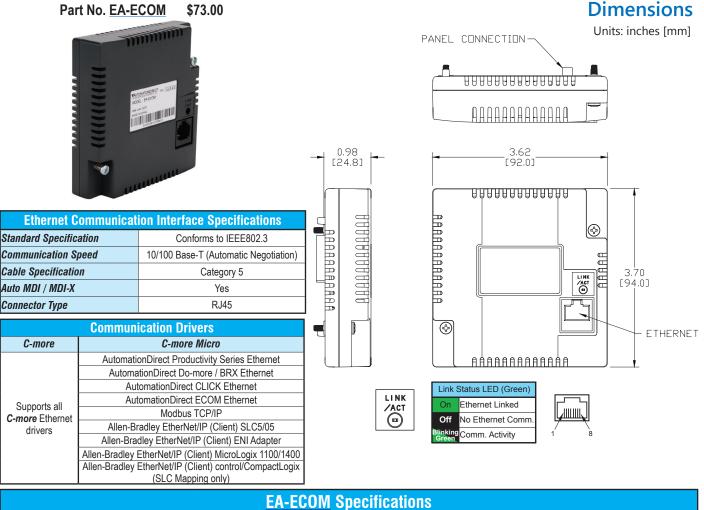


USB flash drive for non-volatile storage, 32GB. Recommended for the *C-more* EA9 series touch panels.

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) 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%), 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, on 3 mutually perpendicular axes (total of 18 shocks)			
Noise Immunity	NEMA ICS3-304 RFI, (145 MHz, 440 MHz 10 W @ 10 cm) Impulse 1000 V @ 1 μs pulse			
Emission	EN55011 Class A (Radiated RF emission)			
Enclosure (panel door installation)	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)			
Agency Approvals	CE (EN61131-2), UL508, CUL Canadian C22.2 To obtain the most current agency approval information, 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 Replacement Parts

These replacement parts can be used to replace damaged, worn or lost *C-more* components.

Replacement parts at a glance:

Part Number	Price		Description
<u>EA9-BRK</u>	\$36.00		C-more panel mounting brackets, replacement. Package of 8. For use with C-more EA9 series touch panels.
EA9-LBL	\$32.00		C-more blank label insert, replacement. Package of 10. For use with C-more EA9 series HMI front bezel.
<u>EA9-3TB</u>	\$12.50	LOPEN LOPEN	C-more pluggable terminal block, replacement, 3-pole. Package of 2. For use with 3-wire RS485 communications port on C-more EA9 series panels.
<u>C0-4TB</u>	\$10.00	TREE TREE	CLICK terminal blocks, replacement, 4-pole. Package of 2. For use with CLICK PLCs, <i>C-more</i> CM5 series HMIs and <i>C-more</i> EA9-RHMI.
EA-DC-CON	\$19.00		C-more DC 5-terminal power connector, replacement. For use with C-more EA7 and EA9 series touch panels.
EA-AC-CON	\$10.00	A REAL PROPERTY AND A REAL	<i>C-more</i> AC 3-terminal power connector, replacement. For use with <i>C-more</i> AC adapter (p/n EA-AC).
<u>EA9-15-GSK</u>	\$34.00		<i>C-more</i> panel mounting gasket, replacement. For use with <i>C-more</i> EA9 series 15in HMIs.
<u>EA9-12-GSK</u>	\$27.50		C-more panel mounting gasket, replacement. For use with C-more EA9-T12CL 12in touch panel.
<u>EA9-10W-GSK</u>	\$26.50		<i>C-more</i> panel mounting gasket, replacement. For use with <i>C-more</i> EA9-T10WCL 10in HMI.
<u>EA9-10-GSK</u>	\$26.50	Y	C-more panel mounting gasket, replacement. For use with C-more EA9-T10CL 10in HMI.
<u>EA9-8-GSK</u>	\$23.00		C-more panel mounting gasket, replacement. For use with C-more EA9-T8CL 8in touch panel.
<u>EA9-6-GSK</u>	\$21.00		<i>C-more</i> panel mounting gasket, replacement. For use with <i>C-more</i> EA9 series 6in and 7in touch panels.