E-PLEX® | 500CCM SERIES

Color LCD & Electronic Control Module

Key Features

- Helm mountable
- 7" diagonal color LCD Touch Screen with transmissive display
- 480 x 234 screen resolution, 16-bit true color
- Rear USB service port
- Custom touch screen graphic design and layout created within E-Logic software
- Custom dynamic and static graphics provided via color touch screen and touch overlay areas
- Landscape & Portrait Orientation Options

Design Specifications

- Shock: (non-operating) Half sine wave, 80G, 11ms 3 times shock of each six faces
- Vibration: Tested to Lloyds test spec #1 section 12
- Moisture resistance : IP66
- PCB characteristics : UL94V-0
- Salt spray: Mil Std-202

Overview

The E-PLEX® 500CCM series combines master programmer and controller functionality along with a color touch screen interface providing a robust display and control solution for any E-Plex System. Dynamic touch screen graphics and static touch overlays give you the ability to provide a unique appearance while maintaining a constant interface.

The 500CCM is compatible with existing E-Plex modules and provides advanced system status and configuration capabilities. Combining the 500CCM with other AC distribution, DC distribution, digital I/O, sensing, user interfaces and system interface modules allows you to configure a system to meet your specific needs.

Electrical Specifications:

Description	Minimum	Nominal	Maximum
Operating Voltage	9 VDC	12 / 24 VDC	32 VDC
Operating Current, no E-Plex loads	400 mA @ 32VDC	-	900 mA @ 9VDC
E-Plex Output Current	-	-	1.5 A

Physical Specifications:

LCD Brightness	350 cd / m²
Real-Time Clock Battery Life	20,000 hours typical
LCD Horizontal Viewing Angle	-60 / 60
LCD Vertical Viewing Angle	-30 / 60
Front Bezel	UL 94 V-0, approved molded ABS
Back Cover	UL 94 V-0, approved molded ABS
Operating Temperature	-20°C to 50°C
Storage Temperature	-30°C to 85°C
Operating Humidity	5% to 100%
Weight	680 grams
Recommended Wire Specification for E-Plex Twisted Pair [1]	16 AWG (1.3 mm) - Unshielded, twisted pair General purpose: Belden 1035 A - Non-tinned Marine: Belden 9410 - Tinned

NOTE:

1. Unrestricted topology: Star, Tree, Daisy Chain configurations all valid.

Wiring Specifications:

Terminal Connector Specifications	Tin-plated male 0.250" quick-connect tabs
Mating Connector Specification	0.250" female spade terminal

Mounting Specifications:
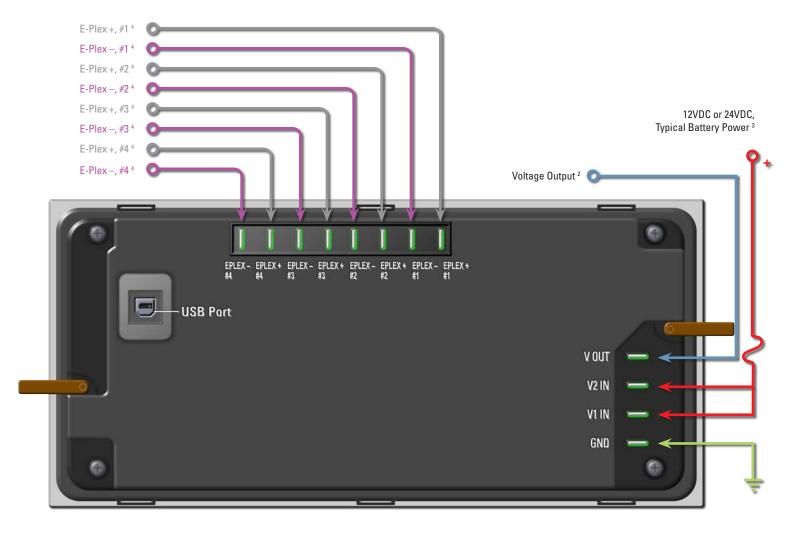
A rectangular hole the size of the keep out area (labeled on the dimensional drawings) must be cut from mounting surface. The keep out area is 9.75" x 4.32". The depth of the module is approximately 1.325". Please allow sufficient room for all wires connected to the clock as well.

Mounting Instructions:

Hand tighten mounting screws until snug, torque should not exceed 10 in-lbs.

Typical Wiring Diagram:

E-Plex +, #1 [4]

E-Plex −, #1 [4]

E-Plex +, #2 [4]

E-Plex −, #2 [4]

E-Plex +, #3 [4]

E-Plex −, #3 [4]

E-Plex +, #4 [4]

E-Plex −, #4 [4]

12VDC or 24VDC,
Typical Battery Power [3]

Voltage Output [2]

+

EPLEX−
#4

EPLEX+
#4

EPLEX−
#3

EPLEX+
#3

EPLEX−
#2

EPLEX+
#2

EPLEX−
#1

EPLEX+
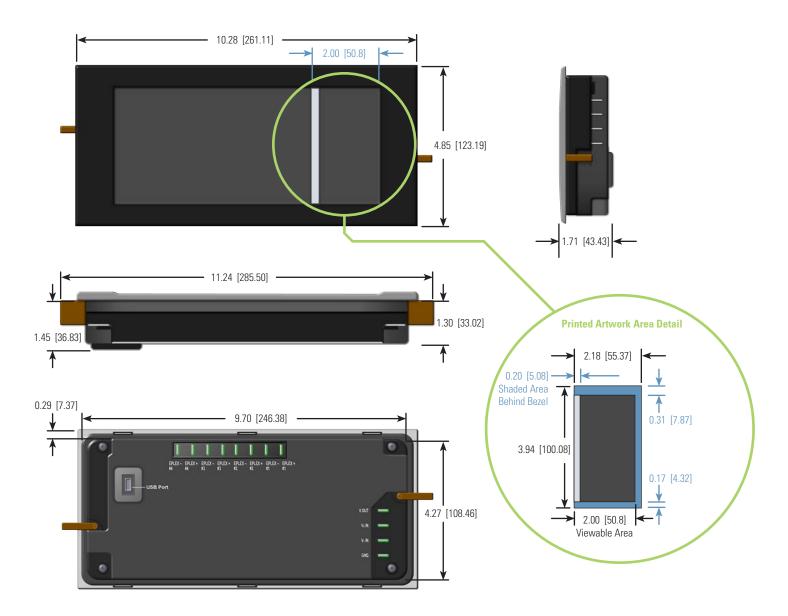#1

USB Port

V OUT

V2 IN

V1 IN

GND

NOTES:

2. V_{OUT} pin is a ≤1 amp current DC output.

3.   User must install fuse or breaker to protect the circuit, rated for 5 amps or less.

4.   1.5A max total for all 4 data connections

Dimensional Diagram:

10.28 [261.11]

2.00 [50.8]

4.85 [123.19]

1.71 [43.43]

11.24 [285.50]

1.45 [36.83]

1.30 [33.02]

0.29 [7.37]

9.70 [246.38]

EPLEX- EPLEX+ EPLEX- EPLEX+ EPLEX- EPLEX+ EPLEX- EPLEX+
#4   #4   #3   #3   #2   #2   #1   #1

USB Port

V OUT

V₂ IN

V₁ IN

GND

4.27 [108.46]

Recommended Hole Cutout : 9.75" x 4.3" (247.65mm x 109.22mm)

Printed Artwork Area Detail

2.18 [55.37]

0.20 [5.08]
Shaded Area
Behind Bezel

0.31 [7.87]

3.94 [100.08]

0.17 [4.32]

2.00 [50.8]
Viewable Area

Ordering Information:

Description	E-PLEX® Part Number
50CCM Series - Color LCD & Electronic Control Module	500CCM

DATA & POWER
AC POWER
DC POWER

DC LOAD DC LOAD
DC LOAD DC LOAD
DC LOAD DC LOAD

BATTERY

DIMENSIONS®
DC TO AC POWER
INVERTER

AC LOAD AC LOAD
AC LOAD AC LOAD
AC LOAD AC LOAD
AC LOAD AC LOAD

325QMM, 366HMM, 422QMM & 436MMX :
4, 6 or 10 channel multi-modules for control of lighting, including dimming and user-defined "mood" lighting

400ECM, 450ECM & 500CCM :
Electronic control modules ("clocks") that function as the master controller and programmer of the entire E-Plex system

345LCD, 350LCD & 452LCD :
5.7", 10" & 12" color LCD touchscreen displays that allow the user to interface with the E-Plex system, including monitoring and control functionality and includes direct feeds for video output

367TPD & 416TPS :
Touch panel switch and touch panel with 4 digit LED display that provide status indication and control of key systems

361SIM :
Inverter interface for complete control over your inverter functions

428RSP :
Programmable multicolor LED rocker switch panel utilizing optical interrupters (no contacts) to eliminate contacts that can corrode

389DMAC & 439DMAC :
AC power distribution module to provide 110V/220V AC main circuit power protection & control

335RFE & 390IR :
Wireless RF & IR modules provide remote control of multiple devices within the E-Plex system

360ACI :
Air conditioning controller for heating, cooling and climate zone control

245EM :
Engine monitor module for oil, temperature, pressure, battery voltage & RPM

318PFTG :
Tank pressure sender for diesel fuel, water, and other fluids

336PFM :
Power frequency module to measure AC current for energy management processing

357AVS :
Audio & video switcher for selection of multimedia inputs

HVAC   ENGINE   TANKS   GENSET   AUDIO / VIDEO

Sensata
Technologies

The World Depends on Sensors and Controls