

Electronic Control Module



Introduction

The E-Plex 400ECM series combines a master programmer and controller functionality with a customizable touch-screen in one low-cost interface. The control module is housed in a small enclosure that extends 50mm from behind the dash or wall surface. It is capable of monitoring and controlling tanks, pumps, lighting, HVAC, generator sets, engines and electronic systems.

A 128-character display (8 x 16) provides information, including alerts and diagnostics, from any of the modules within an E-Plex system. Customers have the opportunity to define custom artwork which is backlit within the touch-screen to provide the end user with an intuitive E-Plex system control interface.

Key Features

- 255 unique alpha-numeric characters with a 64-position touch glass display.
- System diagnostics and security lockout capabilities.
- Electroluminescent (EL) backlight for night-time display.
- 128KB of on-board storage on 400ECM.
- 256KB of on-board storage for larger systems on 450ECM.
- Storage includes a master record of configuration data.
- Custom artwork overlays and a range of bezel finishes.
- Rear USB monitoring and service port (cable required).
- LEN capacity 250.

Electrical Specifications

Supply Voltage	10 – 32V DC
Nominal Current No E-Plex Load	160mA
E-Plex Line Voltage	18V
E-Plex Line Current	3A (Maximum)
LCD Brightness	100cd / m ²
Electroluminescent Panel Brightness	35cd / m ²
Electroluminescent Panel Life Span	5,000 Hours (Typical Half Life)
Viewing Angle (H x V)	+ / - 40°, + / - 35°
IP Rating	2X

Physical Specifications

Front Bezel Material	ABS, Powder Coated
Back Case Material	ABS
Operating Temperature	-20°C - 50°C (-4°F - 122°F)
Storage Temperature	-30°C- 85°C (-22°F - 185°F)
Weight	450g (15.8oz)
Overall Length	180mm (7.08")
Overall Height	126mm (4.96")
Overall Depth	50mm (1.96")
Mounting Hole Size (H X W) (Cutout Template supplied with module)	162mm (6.37") x 113mm (4.44")



Terminal Connector Specifications

Phoenix Contact 3 Way Screw Clamp Board Connector (included with module)	
Wire gauge	0.2mm ² (24AWG) Min to 2.5mm ² (12AWG) Max
Wire Strip Length	5 – 7 mm (.19” to .27”)
Communications Connector Specifications	4 x EP3, 1 x USB (type B)

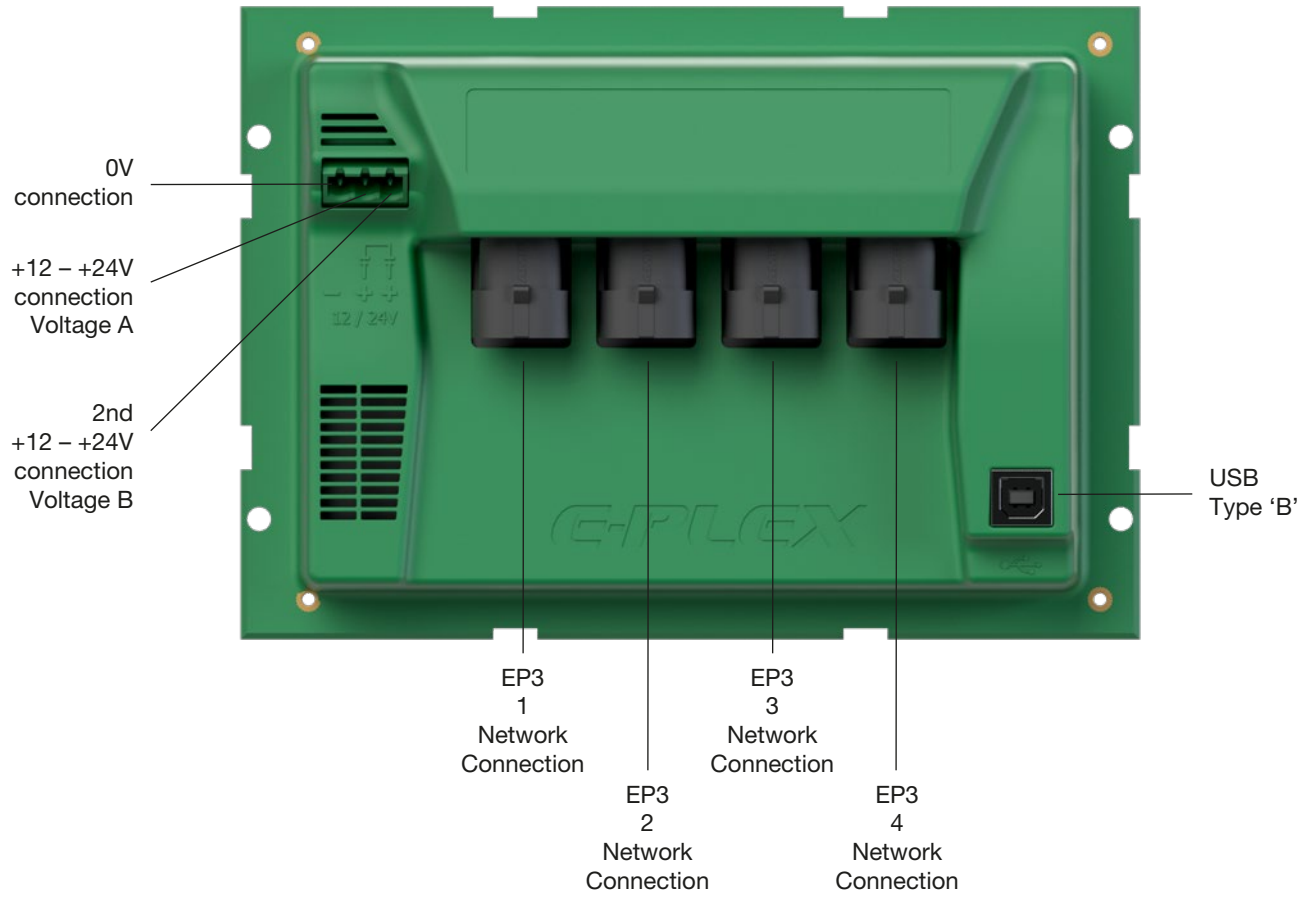
Connection	Specifications	In / Out	Remarks
1	EP3 Data Bus	I/O	750mA Maximum
2	EP3 Data Bus	I/O	750mA Maximum
3	EP3 Data Bus	I/O	750mA Maximum
4	EP3 Data Bus	I/O	750mA Maximum
5	USB (Type B)	I/O	
6	DC IN + (Voltage A) ¹	I	7-32V ³
7	DC IN + (Voltage B) ²	I	7-32V ³
8	DC IN -	I	0V (GND)

¹ Reports as Voltage A in E-Logic Software

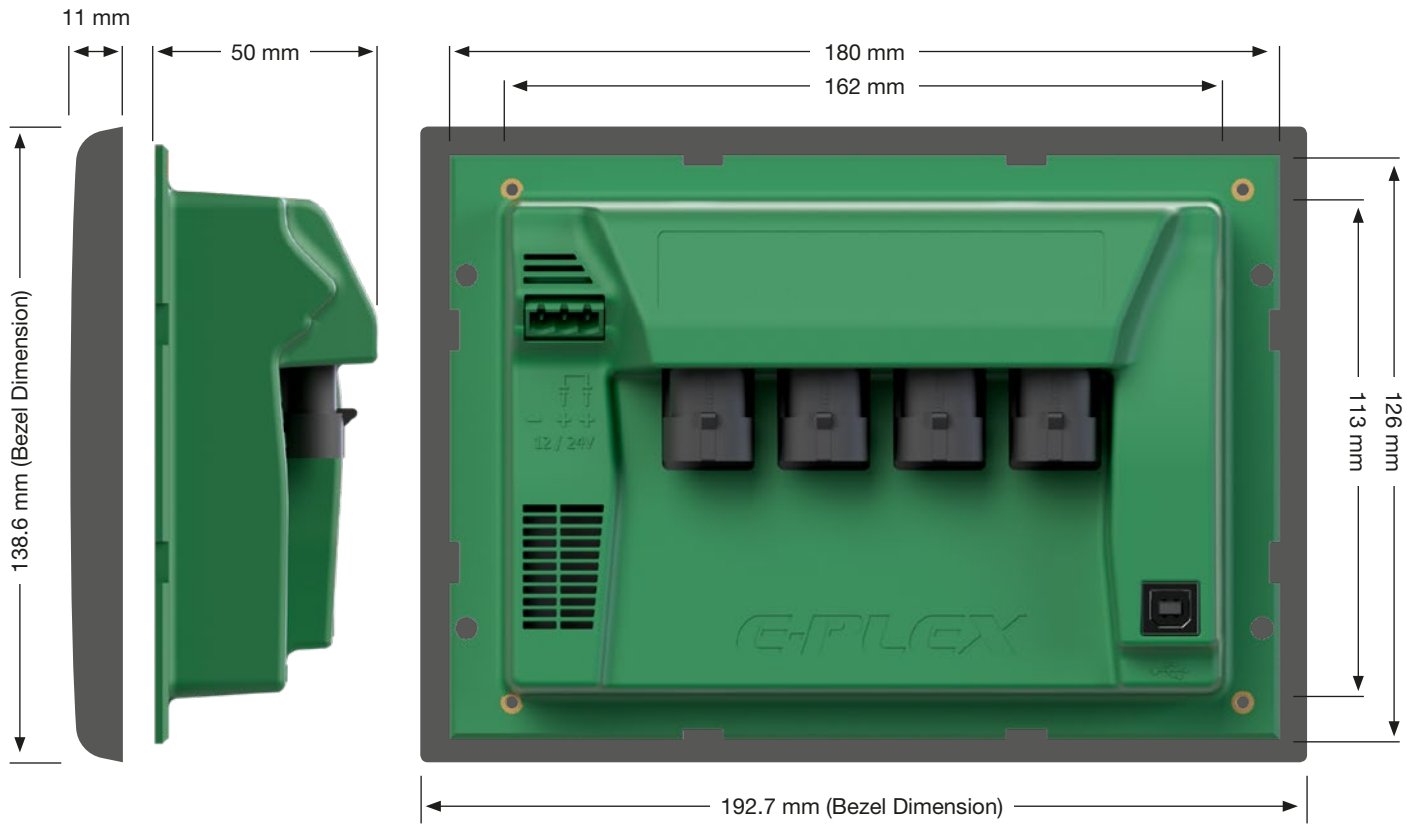
² Reports as Voltage B in E-Logic Software

³ User must install a fuse or breaker to protect the circuit, rated at 5A or less

Connection and Wiring Diagram

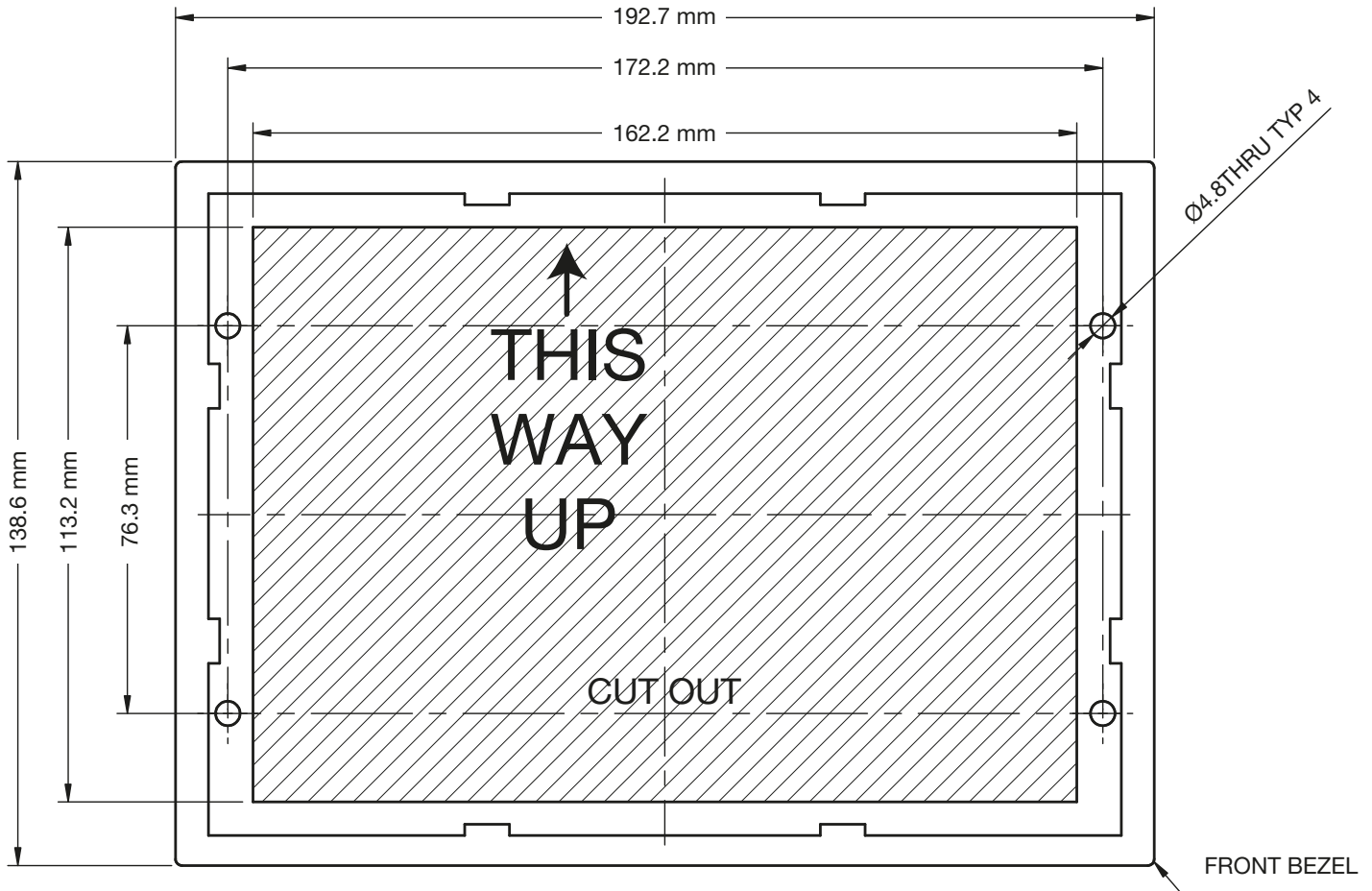


Dimensional Diagram Module



Dimensional Diagram Mounting holes and cutout size.

Please allow sufficient room for all wires connected to the clock as well.



Mounting Instructions

Metric fasteners: Use M4 size screw with M4 split lock washer and torque to 180~215 N-cm. Do not exceed this torque as it could cause damage to the electronics.

Imperial (English) fasteners: Use #8 size screw with #8 split lock washer and torque to 16~19 in-lb. Do not exceed this torque as it could cause damage to the electronics.

Height of mounting screw head and split lock washer must be less than 0.35mm [0.014"] Screw assembly to flat mounting surface in 4 places.

Ordering Information

Description	Old code	New code
400ECM Electronic Control Module	EP3-CLOCK-400ECM-C0	EP3-400ECM-C1
450ECM Electronic Control Module	EP3-CLOCK-450ECM-C0	EP3-450ECM-C1
Replacement Power Connector	EP3-CLOCK-400ECM-C0-CON	CO-CONN-400/450-POWER
Customer Defined Bezel (see below)	EP-BEZEL-CLOCK-MC0067-XX	BEZEL-CLOCK-XX

Standard Bezel Options



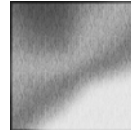
Flat Black Bezel
BEZEL-CLOCK-FB



Black Gloss Bezel
BEZEL-CLOC-GB



Grey Gloss Bezel
BEZEL-CLOCK-GR



Metallic Nickel Gloss Bezel
BEZEL-CLOCK-NI

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