



XLE OCS Model: HE-XE100 / HEXE220C100 / HEXE220C000

1 Specifications

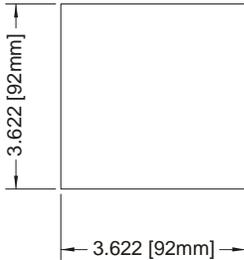
Specifications	
General Specifications	
Required Power (Steady State)	130 mA @ 24 VDC
Required Power (Inrush)	30A for 1 ms @ 24 VDC
Primary Power Range	10 – 30 VDC
Relative Humidity	5 to 95% Non-condensing
Clock Accuracy	+/- Seven Minutes/Month at 20C
Operating Temperature	0°C to +50°C
Terminal Type	Screw Type, 5 mm Removable
Weight	12 oz. (340.19 g)
CE	See Compliance Table at : http://www.heapq.com/Support/compliance.htm
UL	

2 Panel Cut-Out and Dimensions

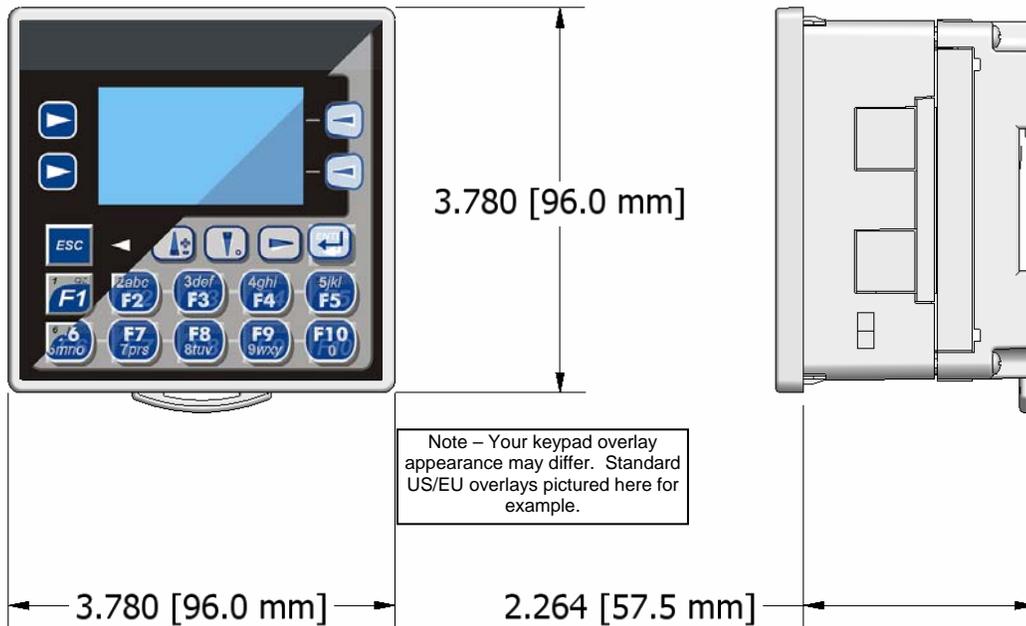
Note: Max. panel thickness: 5 mm.

Refer to the User Manual for panel box information and a handy checklist of requirements.

Note: The tolerance to meet NEMA standards is ± 0.005" (0.1 mm).



001XLE002



3 Ports / Connectors / Cables

Note: The case of the XLe is black, but for clarity, it is shown in a lighter gray color.

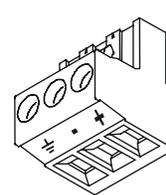
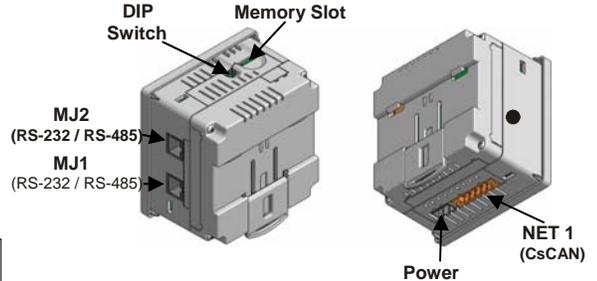
To Remove Back Cover:
Unscrew 4 screws located on the back of the unit and remove back cover.

CAUTION: Do not over tighten screws when replacing back cover.

Memory Slot:
Uses Removable Memory for data logging, screen captures, program loading and recipes.
Horner Part No.: HE-MC1

Serial Communications:
MJ1: (RS-232 / RS-485) Use for Cscape programming and Application-Defined Communications.

MJ2: (RS-232 / RS-485) Use for Application-Defined Communications.

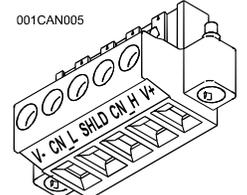


Power Connector

Power Up:

Connect to Earth Ground.
Apply 10 - 30 VDC.
Screen lights up.

Torque rating 4.5 – 7 Lb-In
(0.50 – 0.78 N-m)



CAN Connector

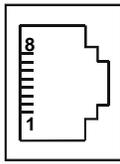
Use the CAN Connector when using CsCAN network.

Torque rating 4.5 – 7 Lb-In
(0.50 – 0.78 N-m)

4 Serial Communications:

MJ1: (RS-232 / RS-485) Use for Cscope programming and Application-Defined Communications.

MJ2: (RS-232 / RS-485) Use for Application-Defined Communications.



Pin	MJ1 Pins		MJ2 Pins	
	Signal	Direction	Signal	Direction
8	TXD	OUT	TXD	OUT
7	RXD	IN	RXD	IN
6	0 V	Ground	0 V	Ground
5*	+5 60mA	OUT	+5 60mA	OUT
4	RTS	OUT	TX-	OUT
3	CTS	IN	TX+	OUT
2	RX- / TX-	IN / OUT	RX-	IN
1	RX+ / TX+	IN / OUT	RX+	IN

* +5Vdc 60mA Max on XLe Rev E and later

5 Wiring and Jumpers

Wire according to the type of inputs / outputs used, and select the appropriate jumper option.

- Use Only Copper Conductors in Field Wiring, 60/75° C

Wiring Specifications

•For CAN wiring, use the following wire type or equivalent:
Belden 3084, 24 AWG (0.2 mm²) or larger.

5.1 External DIP Switch Settings (or Jumpers Settings)

As seen when looking at the top of the XLe unit :

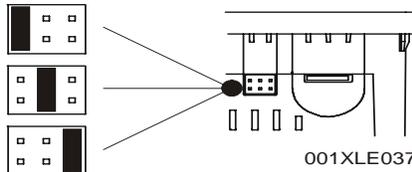
The DIP Switches or jumpers are used for termination of the RS-485 ports. The XLe is shipped un-terminated.

To terminate, select one of the DIP Switches and configure it based upon the option that is desired.

DIPSW3: FACTORY USE ONLY (tiny bootloader firmware downloading). NOT TO BE USED FOR NORMAL OCS OPERATION.

DIPSW2: MJ2 Termination (default – none)

DIPSW1: MJ1 Termination (default – none)

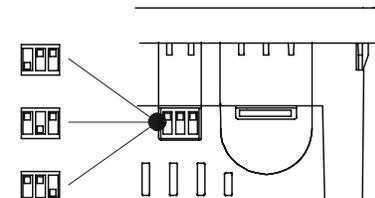


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DIPSW3: FACTORY USE ONLY (tiny bootloader firmware downloading). NOT TO BE USED FOR NORMAL OCS OPERATION.

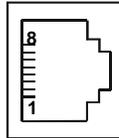
DIPSW2: MJ2 Termination (default – none)

DIPSW1: MJ1 Termination (default – none)



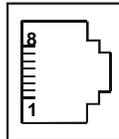
001XLE037-R1

6 MJ2 Pinouts in Half and Full Duplex Modes



Pin	MJ2 Pins	
	Signal	Direction
8	TXD	OUT
7	RXD	IN
6	0 V	Ground
5*	+5 60mA	OUT
4	TX-	OUT
3	TX+	OUT
2	TX-/RX-	IN/OUT
1	TX+/RX+	IN/OUT

MJ2 Half Duplex Mode



Pin	MJ2 Pins	
	Signal	Direction
8	TXD	OUT
7	RXD	IN
6	0 V	Ground
5*	+5 60mA	OUT
4	TX-	OUT
3	TX+	OUT
2	RX-	IN
1	RX+	IN

MJ2 Full Duplex Mode

* +5Vdc 60mA Max on XLe Rev E and later

7 Safety

When found on the product, the following symbols specify:



Warning: Electrical Shock Hazard.



Warning: Consult user documentation.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or Non-hazardous locations only

WARNING – EXPLOSION HAZARD – Substitution of components may impair suitability for Class I, Division 2

AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS PEUT RENDRE CE MATERIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE 1, DIVISION 2

WARNING – EXPLOSION HAZARD – Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

AVERTISSEMENT - RISQUE D'EXPLOSION - AVANT DE DECONNECTER L'EQUIPMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DESIGNÉ NON DANGEREUX.

WARNING: To avoid the risk of electric shock or burns, always connect the safety (or earth) ground before making any other connections.

WARNING: To reduce the risk of fire, electrical shock, or physical injury it is strongly recommended to fuse the voltage measurement inputs. Be sure to locate fuses as close to the source as possible.

WARNING: Replace fuse with the same type and rating to provide protection against risk of fire and shock hazards.

WARNING: In the event of repeated failure, do not replace the fuse again as a repeated failure indicates a defective condition that will not clear by replacing the fuse.

WARNING: Only qualified electrical personnel familiar with the construction and operation of this equipment and the hazards involved should install, adjust, operate, or service this equipment. Read and understand this manual and other applicable manuals in their entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or loss of life.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

- ♦ All applicable codes and standards need to be followed in the installation of this product.
- ♦ Adhere to the following safety precautions whenever any type of connection is made to the module:
 - Connect the safety (earth) ground on the power connector first before making any other connections.
 - When connecting to electric circuits or pulse-initiating equipment, open their related breakers.
 - Do not make connections to live power lines.
 - Make connections to the module first; then connect to the circuit to be monitored.
 - Route power wires in a safe manner in accordance with good practice and local codes.
 - Wear proper personal protective equipment including safety glasses and insulated gloves when making connections to power circuits.
 - Ensure hands, shoes, and floor are dry before making any connection to a power line.
 - Make sure the unit is turned OFF before making connection to terminals.
 - Make sure all circuits are de-energized before making connections.
 - Before each use, inspect all cables for breaks or cracks in the insulation. Replace immediately if defective.

8 Technical Support

For assistance and manual updates, contact Technical Support at the following locations:

North America:

(317) 916-4274

<http://www.heapg.com>

email: techspt@heapg.com

Europe:

(+) 353-21-4321-266

<http://www.horner-apg.com>

email: techsupport@hornerirl.ie

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