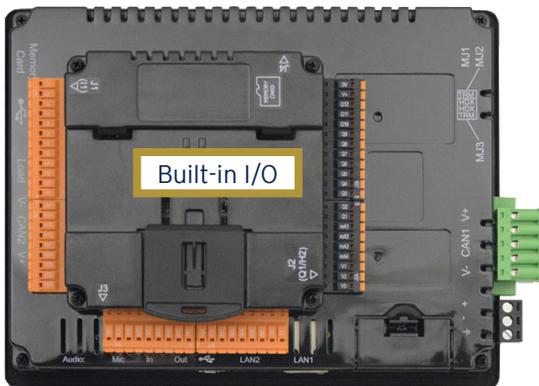


# EXLW OCS QUICK REFERENCE GUIDE

## General Specifications

Required Power (Steady State)	420mA @ 12VDC 230mA @ 24VDC
Required Power (Inrush)	25A for < 1ms @ 24VDC, DC switched
Primary Power Range	10 - 30VDC
Relative Humidity	5 to 95% non-condensing
Typical Power Backlight 100%	6.816W @ 24VDC
Power Backlight 50%	6.169W @ 24VDC
Power Backlight OFF	5.472W @ 24VDC
Clock Accuracy	+ / - 20 ppm maximum at 25°C (+/- 1 min/month)
Real Time Clock	Battery Backed, Rechargeable Lithium
Operating Air Temp	-10°C to +60°C
Storage Temp	-20°C to +60°C
Weight	1.59 lbs (721.2g)
Altitude	Up to 2000m
Rated Pollution Degree	Evaluated for Pollution Degree 2 Rating
Certifications (UL/CE)	North America: <a href="https://hornerautomation.com/certifications/">https://hornerautomation.com/certifications/</a> Europe: <a href="https://www.hornerautomation.eu/support/certifications-2/">https://www.hornerautomation.eu/support/certifications-2/</a>

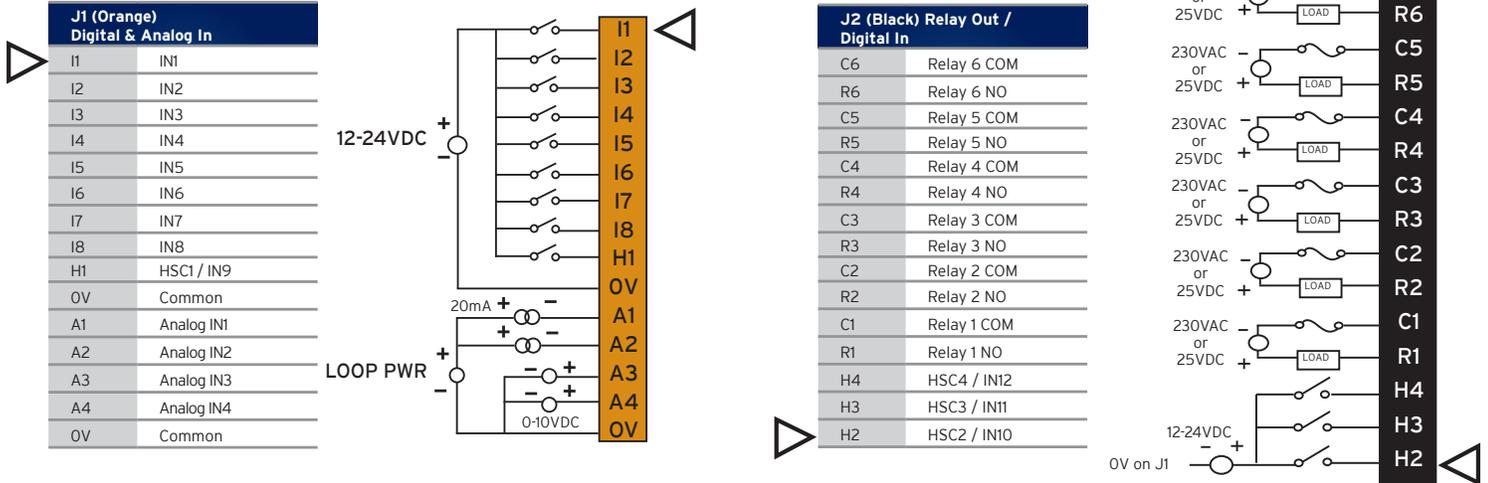
## EXLW Overview



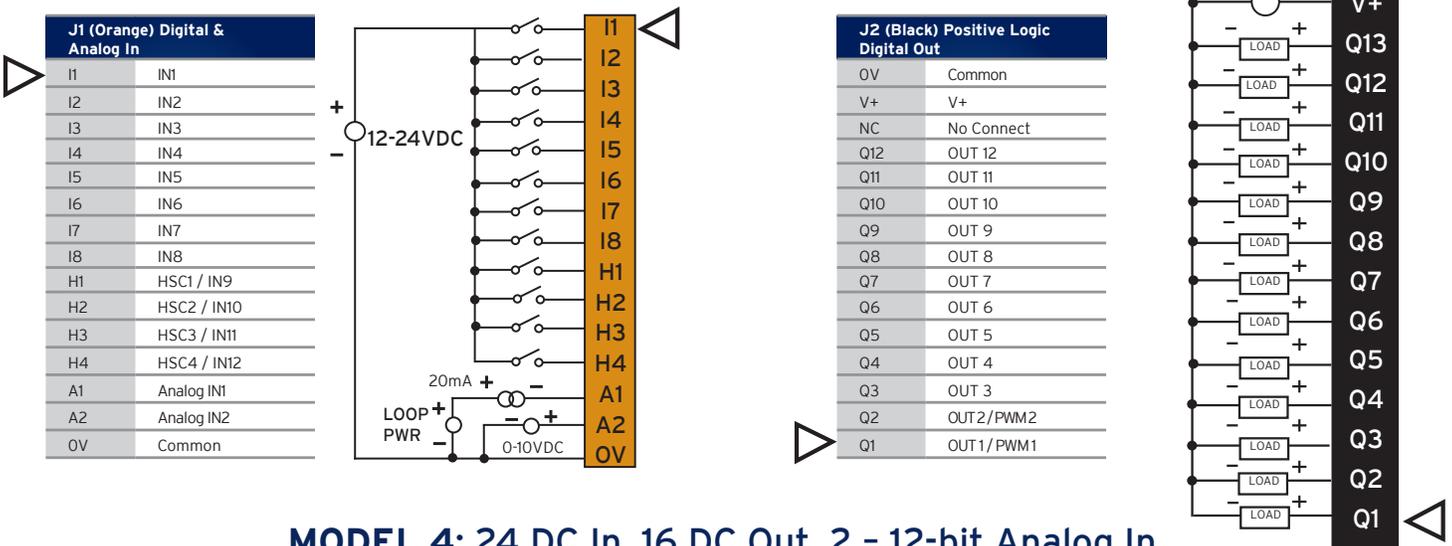
1. Touchscreen
2. USB 2.0 "A": Flash Drive
3. LAN Port
4. PWR: 10-30VDC In
5. CAN Port
6. MJ3: RS-232/485
7. Dip Switches
8. MJ1/MJ2: RJ45 Serial Port
9. microSD: Data Storage
10. USB mini "B": Programming

**NOTE:** See Precaution #15 on page 4 about USB and grounding.

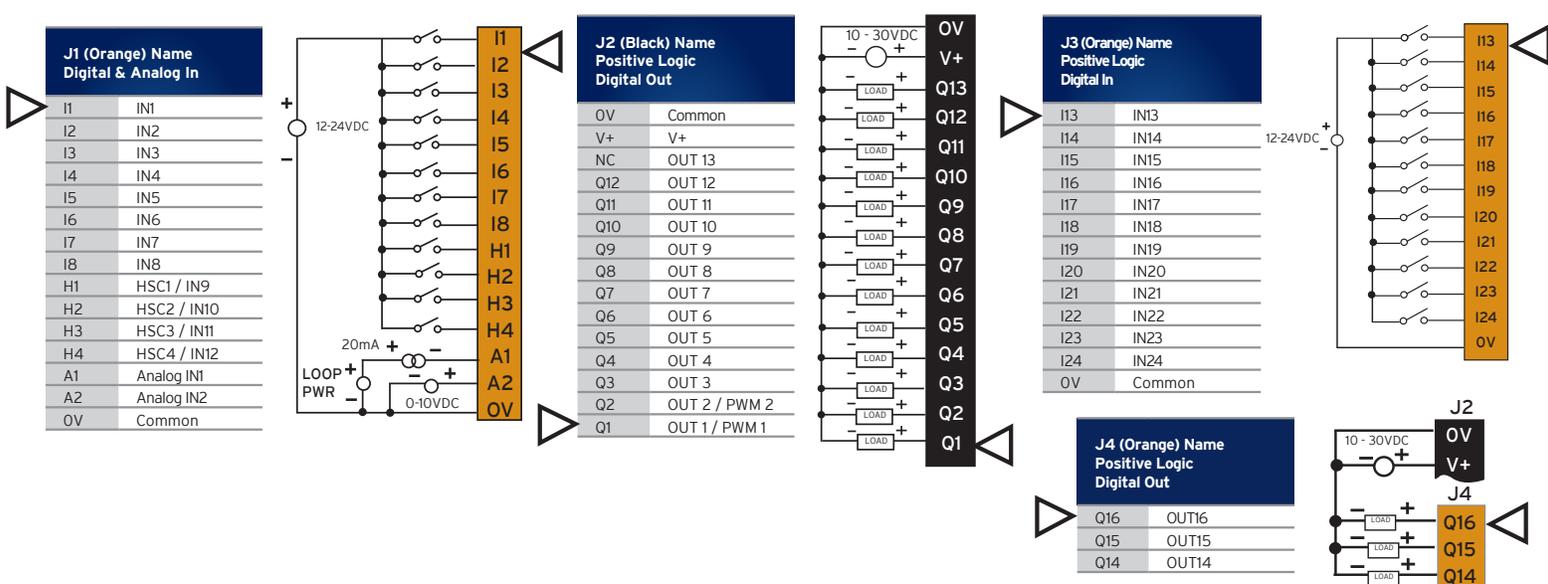
## MODEL 2: 2 DC In, 6 Relay Out, 4 - 12-bit Analog In



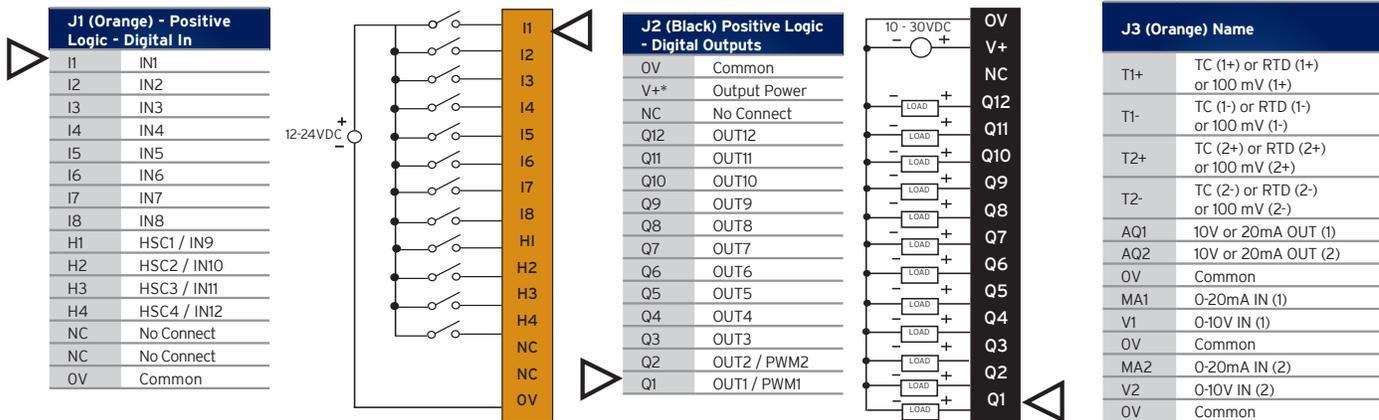
## MODEL 3: 12 DC In, 12 DC Out, 2 - 12-bit Analog In



## MODEL 4: 24 DC In, 16 DC Out, 2 - 12-bit Analog In

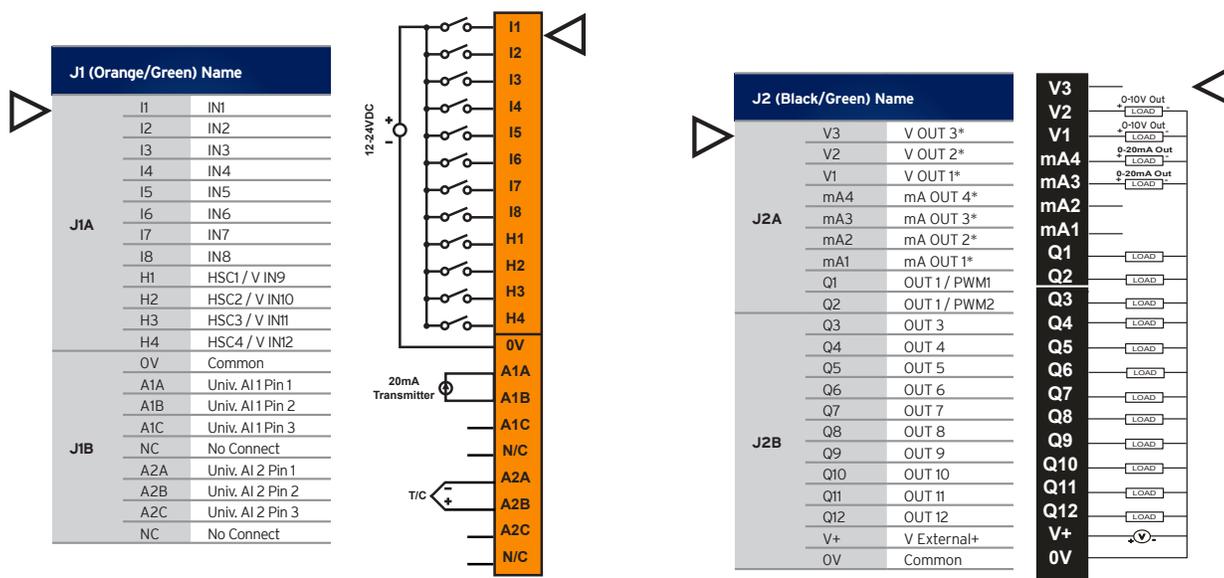


## MODEL 5: 2 DC In, 12 DC Out, 2 - 14/16-bit Analog In (mA/V/TC/mV/RTD), 2 - 12-bit Analog Out



See MAN1172 for Model 5 wiring details.

## MODEL 6: 2 DC In, 12 DC Out, 6 - 14/17-bit Analog In (mA/V/TC/mV/RTD), 4 - 12-bit Analog Out



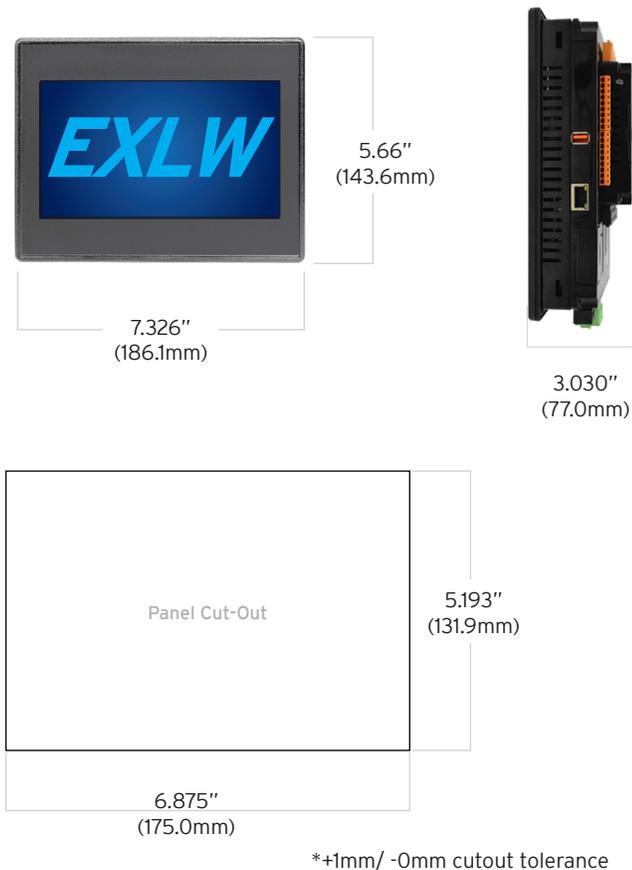
NOTE: \* Both mA & V outputs are active for each output channel, however, only the configured output type is calibrated (maximum 4 channels simultaneously).

**ALL MODELS:**  
Power Wiring Connector

Primary Power Range: 10-30VDC

PIN	SIGNAL	DESCRIPTION
1	Ground	Frame Ground
2	DC-	Power Supply Common
3	DC+	Power Supply Voltage

## Dimensions



## Installation Procedure

- The EXLW utilizes a clip installation method to ensure a robust and watertight seal to the enclosure. Please follow the steps below for the proper installation and operation of the unit.
  - This equipment is suitable for Class I, Division 2, Groups A, B, C and D or non-hazardous locations only.
  - Digital outputs shall be supplied from the same source as the operator control station.
  - Jumpers on connector JP1 shall not be removed or replaced while the circuit is live unless the area is known to be free of ignitable concentrations of flammable gases or vapors.
- Carefully locate an appropriate place to mount the EXLW. Be sure to leave enough room at the top of the unit for insertion and removal of the microSD™ card.
  - Carefully cut the host panel per the diagram, creating a 175.0mm x 131.9mm (+1mm/-0mm) opening into which the EXLW may be installed. If the opening is too large, water may leak into the enclosure, potentially damaging the unit. If the opening is too small, the OCS may not fit through the hole without damage.
  - Remove any burrs and or sharp edges and ensure the panel is not warped in the cutting process.
  - Remove all Removable Terminals from the EXLW. Insert the EXLW through the panel cutout (from the front). The gasket must be between the host panel and the EXLW.
  - Install and tighten the four mounting clips (provided in the box) until the gasket forms a tight seal  
**NOTE: Max torque is 0.8 to 1.13Nm, or 7 to 10 in-lbs.**
  - Reinstall the EXLW I/O Removable Terminal Blocks. Connect communications cables to the serial port, USB ports, Ethernet port, and CAN port as required.

## Precautions

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 the electric circuits or pulse-initiating equipment, open their related breakers.
- Do NOT make connection 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.
- Use copper conductors in Field Wiring only, 60/75°C.
- Do not disconnect while circuit is live unless area is known to be non-hazardous.
- Do not remove or replace jumpers or connectors while circuit is live unless the area is known to be free of ignitable concentrations of flammable gases or vapors.
- Use caution when making connections to the controller to protect against static discharge. Special care must be taken when replacing the battery or inserting or adjusting I/O or communication boards.
- Use caution when connecting controllers to PCs via serial or USB. PCs, especially laptops may use "floating power supplies" that are ungrounded. This could cause a damaging voltage potential between the laptop and controller. Ensure the controller and laptop are grounded for maximum protection. Consider using a USB isolator due to voltage potential differences as a preventative measure.
- Failure to follow these guidelines can damage the controller and/or other devices.

## Hazardous Location Notice

Power, input and output (I/O) wiring must be in accordance with Class 1, Division 2 wiring methods [Article 501-4(b) of the National Electrical Code, NFPA 70] for installations in the U.S. or as specified in Section 18-1J2 of the Canadian Electrical Code for installations within Canada and in accordance with the authority having jurisdiction.

- THIS EQUIPMENT IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A B C 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 MATE RIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE I, DIVISION 2
- WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS AND FREE OF IGNITABLE CONCENTRATIONS.  
ATTENTION - RISQUE D'EXPLOSION - NE DECONNECTEZ PAS L'EQUIPEMENT A MOINS DE L'AVOIR MIS HORS TENSION OU QUE LA ZONE EST CONNUE NON-DANGEREUSE ET NE CONTIENT PAS DE CONCENTRATIONS INFLAMMABLES.
- WARNING - EXPLOSION HAZARD - BATTERIES MUST ONLY BE CHARGED IN AN AREA KNOWN TO BE NON-HAZARDOUS.  
AVERTISSEMENT - RISQUE D'EXPLOSION - LES PILES NE DOIVENT ÊTRE CHARGÉES QUE DANS UN ENDROIT DE DANGER NON DANGEREUX.
- WARNING - Battery may explode if mistreated. Do not recharge, disassemble, or dispose of in fire.  
AVERTISSEMENT - La batterie peut exploser si elle est maltraitée. Ne pas recharger, démonter ou jeter au feu.

## FCC Compliance

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

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

## Technical Support

For further details, please refer to the Datasheets, MANI257 - MANI262. For assistance and manual updates, contact Technical Support at the following locations:

**North America**  
+1 (317) 916-4274  
www.hornerautomation.com  
techsppt@heapg.com

**Europe**  
+353 (21) 4321-266  
www.hornerautomation.eu  
technical.support@horner-apg.com