

# X4 OCS

## A Powerful Intro to a Complete Line of Industrial Control Solutions

Utilizing comprehensive, built-in I/O, and high-resolution color graphics to empower organizations across a multitude of industries.



### APPLICATIONS

#### Agriculture

- Reduce energy consumption
- Increase overall productivity

#### Building Automation

- Improve occupant comfort
- Economical operation systems

#### Material Handling

- Minimize HMI inefficiencies
- Track/log/catalog data

#### Oil and Gas

- Maximize capacity utilization
- Maintain emission standards

#### Renewable Energy

- Data logging, remote access
- Sunlight and UV protection

#### Water/Wastewater

- Station pump control
- Remote water well controls

### MINIMAL PHYSICAL DESIGN

The small, sleek profile of the X4 enables you to fit more in your panel, saving space and resources. The X4 packs a big picture into an overall small package. With just a 4.6" x 3.5" cutout, this 4.3" wide aspect screen is very friendly, intuitive, and clear.

### COMPREHENSIVE I/O CONFIGURATION

In an effort to make implementing Horner OCS controllers as seamless and user-friendly as possible, we have selected a streamlined set of on-board I/O. The wide scope of digital and analog I/O make automating your applications, and your organization, as simple as the push of a (virtual) button. If the built-in I/O of the X4 isn't enough for your specific application, you can easily expand via Ethernet, CAN, or serial.

### FLEXIBILITY

In the market of fixed I/O, web-compatible controllers, the X4 is unmatched. Suited for most applications across a diverse range of industries, the X4 exceeds standards (and expectations). With powerful processor speeds, an intuitive user interface, and rugged durability, the suite of capabilities within the X4 are similar to our more established XL line of products.

### COMPETITIVE ADVANTAGE

With the addition of the X4 OCS controller, our engineers at Horner Automation have designed a slim, versatile, and complimentary product to our existing line of robust industrial solutions. The X4, when utilized as an introductory piece, empowers your organization to grow by seamlessly incorporating additional Horner solutions (such as our more basic X2 or premium X5 OCS controllers) to your expanding system.

# SPECIFICATIONS AND TECHNICAL INFORMATION



## PHYSICAL CHARACTERISTICS

- 1 Virtual function keys slide in from the right on command
- 2 USB mini-B port
- 3 High capacity microSD slot
- 4 DC outputs
- 5 DC inputs
- 6 Analog I/O
- 7 RS232/RS485 serial port
- 8 DC power
- 9 CAN port (via RJ45)
- 10 Ethernet LAN port

## PHYSICAL SPECIFICATIONS

|            |   |
|------------|---|
| Dimensions | mm: 89.76 tall x 119.18 wide x 35.8 total depth<br>in: 3.53 tall x 4.69 wide x 1.41 total depth |
| Weight     | 280g / 10oz   |

## STANDARD ONBOARD I/O

|                      |  |
|----------------------|--|
| Total Digital Inputs | 12 x 24VDC Sinking/Sourcing  |
| Analog Inputs        | 4 x 4-20mA, or 2 x RTD*  |
| Analog Outputs       | 2 x 4-20mA   |
| High Speed Inputs    | 4 @ 500kHz   |
| High Speed Outputs   | 2 @ 65kHz  |
| Remote I/O           | All Models Support SmartRail, SmartBlock, SmartStix, SmartMod, various 3rd party I/O devices |

\*A 3rd and 4th RTD channel is available if Analog Outputs are not used

## MODEL-DEPENDENT OUTPUTS

|        |                                |
|--------|--------------------------------|
| HE-X4A | 12 x 24VDC Sourcing 0.5A       |
| HE-X4R | 6 x Relay 3A, 2 x Sinking 0.5A |

## INPUTS/OUTPUTS MODEL OVERVIEW

|            | MODEL R            | MODEL A |
|------------|--------------------|---------|
| DC In      | 12                 | 12      |
| DC Out     | 2                  | 12      |
| Relays     | 6                  | -       |
| HS In      | 2                  | 4       |
| HS Out     | 4                  | 2       |
| Analog In  | mA x 4 or RTD* x 2 | 4       |
| Analog Out | mA x 2             | 2       |

\*A 3rd and 4th RTD channel is available if Analog Outputs are not used

There are four high-speed inputs of the total DC Inputs.  
There are two high-speed outputs of the total DC outputs.

Model A supports sourcing outputs. Model R DC outputs are sinking with integral pull up resistors.

## CONTROLLER

|                       |  |
|-----------------------|--|
| CPU                   | 32 Bit Arm with Integrated Graphics          |
| Logic Scan Rate       | 0.4 mS/K                                     |
| Built-In Storage      | 32MB   |
| Removable Memory      | 32GB microSD                                 |
| Retentive Storage     | 128K Battery-Backed Ram                      |
| Programming Languages | Advanced Ladder or IEC: ST, LD, FBD, IL, SFC |

## USER INTERFACE

|                    |   |
|--------------------|---|
| Display Technology | Wide 4.3" TFT Color 350 cd/m <sup>2</sup> |
| Resolution / Color | 480 x 272, 65K Colors                     |
| Touch Screen       | Resistive                                 |

## CONNECTIVITY

|                    |                               |
|--------------------|-------------------------------|
| Serial Ports       | 1 Port with RS-232 and RS-485 |
| USB Ports (Mini-B) | 1 Programming                 |
| Ethernet           | 10/100 Support with Auto MDIX |
| CAN                | 1 Port 125K - 1 MB            |

## OPERATING SPECS. & STANDARDS

|                       |                                      |
|-----------------------|--------------------------------------|
| Primary Power Range   | 24VDC +/- 20%                        |
| Operating Temperature | -10° to 60° C                        |
| Humidity              | 5 to 95% Non-Condensing              |
| Ratings               | IP65, UL Type 3R, 4, 4x, 12, 12k, 13 |