HORNER
AUTOMATION GROUP

CE

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.

HA-277R7

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: 96 tall x 125 wide x 31 total depth in: 3.79 tall x 4.92 wide x 1.22 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, Smart-Stix, 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
HE-X4Starter	Starter Kit with 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	4	4
HS Out	2	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^2
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