## X7 OCS

# A Premium Addition to a Suite of Built-In I/O Control Solutions

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



#### **APPLICATIONS**

#### Agriculture

- Greenhouse automation
- Enhanced resource management

#### **Building Automation**

- Comprehensive system
- Upgrade for obsolete controls

#### **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 controls
- Remote water well controls

#### **COMPREHENSIVE ADVANTAGE**

With the addition of the X7 OCS controller, our engineers at Horner Automation have designed a slim, versatile, and complimentary product to our existing line of robust industrial solutions. The X7, when utilized as an introductory piece, empowers your organization to grow by seamlessly incorporating additional Horner solutions (such as our more basic X2, and X4 OCS controllers) to your expanding system.

#### **POWERFUL CONTROL SOLUTION**

In the market of cost-effective all-in-one controllers, the web-compatible X7 is unmatched in its abilities to control, communicate, and log data. Suited for applications across a diverse range of industries, the X7 exceeds standards (and expectations). With its capable processor speed and larger, intuitive user interface, the suite of capabilities within the X7 expand upon our established X2 and X4 products.

#### FLEXIBLE I/O CONFIGURATION

In an effort to make the latest Horner OCS controllers as widely applicable as possible, the X7 has been designed with a streamlined set of onboard I/O supporting an impressive array of applications. Discrete manufacturing is well supported with 20-24 digital I/O points - including high-speed inputs and outputs. Are your requirements process oriented? The X7 includes analog inputs and outputs, with support for 4-20mA signals and RTD temperature sensors. If the built-in I/O isn't enough for your specific application - easily expand via Ethernet, CAN, or RS-485.

#### SPACE-SAVING DESIGN

The wide, sleek profile of the X7 enables you to fit more in your panel, saving space and resources. The X7 packs a big picture into an overall small package. With just a 6.9" x 5.2" cutout, this 7" wide aspect screen is very friendly, intuitive, and clear.



### SPECIFICATIONS AND TECHNICAL INFORMATION









Ratings





CONTROLLER		
CPU	32 Bit ARM with Integrated Graphics	
Logic Scan Rate	0.4 mS/K	
Built-In Storage	16MB	
Removable Memory	32GB microSD	
Retentive Storage	128K Battery-Backed Ram	
Programming Languages	Advanced Ladder or IEC: ST, LD, FBD, IL, SFC	

Programming Languages	IL, SFC		
USER INTERFACE			
Display Technology	7" TFT Color 300 cd/m <sup>2</sup>		
Resolution / Color	800 x 480, 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 +/- 10%		
Operating Temperature	-10° to 60° C		
Humidity	5 to 95% Non-Condensing		

#### PHYSICAL CHARACTERISTICS

- 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: 143.50 tall x 186.08 wide x 46.60 deep in: 5.65 tall x 7.33 wide x 1.34 deep		
Weight	590g / 20.8oz		
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-DEPENENT OUTPUTS			
HE-X7A	12 x 24VDC Sourcing 0.5A		
HE-X7R	6 x Relay 3A, 2 x Sinking 0.5A		
INPUTS/OUTPUTS MODEL OVERVIEW			
MODEL R MODEL A		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.			

IP65, UL Type 3R, 4, 4x, 12, 12k, 13