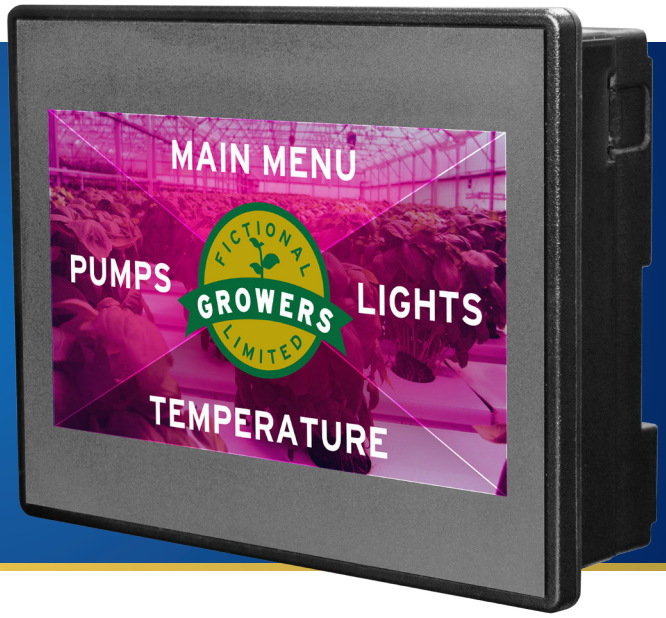
X7 OCS

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

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



CE

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.

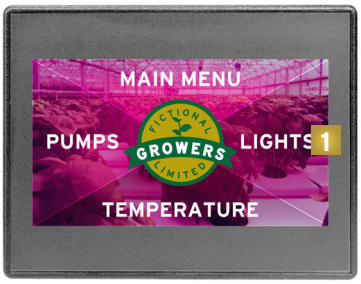
FLEXIBLE I/O CONFIGURATION

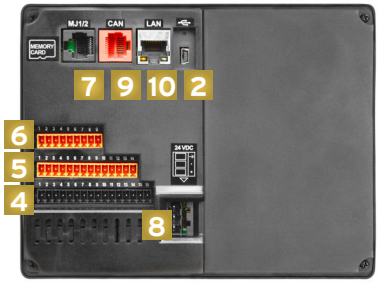
In an effort to make the latest Horner OCS controllers as widely applicable as possible, the X7 has been designed with a streamlined set of onboard I/O supporting an impressive array of applications. Discrete manufacturing is well supported with 20-24 digital I/O points – including high-speed inputs 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





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

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

USER INTERFACE	
Display Technology	7" TFT Color 300 cd/m^2
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
Ratings	IP65, UL Type 3R, 4, 4x, 12, 12k, 13

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
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.		