



XL4 OCS DC/Relay 22 1/0

HORN-0001



The Horner XL4 OCS is an All-in-one controller. This means that this modern unit combines a logic controller, operator interface, I/O and networking all into one package. This OCS (Operator Control Station) family was first released in 1998. New features to the line-up have been added over the years. Today the OCS family has a very competitive advantage as you will soon see.

Programming is done with a single programming software package. Cscape (Control Station Central Application Programming Environment) is designed to be easy to use and maintain.

This series on the Horner XL4 all-in-one controller (PLC) will go step by step through learning how to use this innovative unit.

There are several reasons why we are using the Horner XL4 Controller. Here are just a few.

- Investment is low for the hardware and the software is free
- Standalone PLC with built in I/O and HMI
- Communication ability – Ethernet Port, RS232, RS485 – support for protocols such as Modbus RTU, Modbus TCP, etc.
- Built in data logging functions
- Ability to expand the system with a variety of modules

XLE OCS DC/Relay 22PT

HORN-0002



These are more than just a PLC, they include a Graphical Operator Interface (HMI), built-in I/O, networking and removable mass data storage. OCS is a robust.

reliable control product that combines a traditional controller (programmed with ladder logic) with an operator interface, I/O and networking into an integrated, all-in-one unit using a single industry-recognised software package called Cscape™

- Programmable Logic Controller & Operator Interface Combined
- Touch-Screen Models Available
- Built-In I/O with Removable Terminal Blocks for Easy Wiring
- Removable MicroSD™ Card For Data Logging
- Two Serial Ports
- Ethernet and Telephone Modem Options Cards
- DIN Rail Mount or Panel Mount
 - ¼ DIN size
- Universal Remote I/O Modules (Modbus/RS485)
 - Digital, Analogue, Thermocouple, RTD
 - DIN Rail mountable

XLE OCS DC/DC/UA 28pt

HORN-0003



All XLEe units feature a built-in logic engine, operator interface, networking and I/O, and Ethernet standard.

- Standard Ethernet
- 128×64 graphical display
- 20-key keypad with function key and numeric entry capability
- Logic engine features 256KB of application memory with a 0.7mS/K logic scan.
- (2) RS-232/485 ports support RTU/Modbus Master/Slave, ASCII In/Out, and PLC/Drive downloadable protocols
- integrated CsCAN port
- Removable Mass Storage device
- CANopen Master/Slave Support

XLE OCS HE-XE100JM HORN-0004



- 128x64 LCD screen.
- Configurable function keys.
- Two serial ports plus optional CAN port.
- Standard MicroSD™ support.
- Optional telecommunications module (Ethernet, GSM/GPRS modem & PSTN modem).

The XLe extends the OCS product range with a compact (96x96x57) and cost effective all-in-one controller. With its 128x64 LC-Display it has full monochrome graphics capabilities and is equipped with built-in I/O. This I/O capability coupled with the dual protocol capabilities, optional internal telecommunication modules, makes the XLe a perfect solution for remote machine control and distributed control systems.

The OCS with its full IEC61131-3 integrated development environment for logic, HMI design, networking and I/O configuration is a very capable PLC with full graphics capability. The operator interface used in the XLe series is a high visibility graphics monochrome display with blue LED backlight offering excellent readability to the user in the most difficult conditions.

I/O & Communications options for any application

On top of the built-in fixed I/O the XLe can be extended with any of our SmartStix™ and SmartMod™ remote I/O modules. Two serial ports support simultaneous protocols giving the ability to connect to virtually any serial device. Add a telecommunications module to the XLe and access your machinery or plant anywhere in the world

XL7 OCS Controller

HORN-0005

HE-Logic engine features 1MB of application memory with a 0.013mS/K logic scan. Online Programming Mode (making logic changes on the fly without going thru stop mode) is supported.



- 800x480 LCD TFT color graphics display with a high resolution resistive touchscreen
- 5 function keys and a system key
- USB 2.0 On-the-Go port (mini-B 5pin) is available for programming
- USB 2.0 Host port (A) is available for exchanging files with USB FLASH drives
- (2) RS-232/485 ports support RTU/Modbus Master/Slave, ASCII In/Out, and PLC/Drive downloadable protocols

SMARTBLOCK HE359DIQ512 SmartMod

HORN-0006



- Connects via RS-485 Modbus/RTU to an XLe, QX, LX or NX Operator Control Station or any other OCS/RCS family controller
- A total of 31 SmartMod I/O modules may be daisy chained on a single RS-485 link
- DIN rail mountable
- Optical Isolation
- Response time suitable for most analog applications
- Fits in the smallest panels: 17.5mm x 100mm x 120mm (0.69" x 3.94" x 4.72")
- 12 different SmartMod I/O modules are available to choose from including:
 - DC In, DC Out
 - Analog In, Analog Out
 - Relay
 - RTD
 - Thermocouple

SMARTBLOCK 8DC

INPUTS & 8 0 5 AMP DC OUTPUT

HORN-0007

SmartBlock I/O is complementary to SmartStix I/O, providing analog and specialty modules for CsCAN. SmartBlock is compatible with X-series OCS/RCS Products (XLe, XLt, XL6, NX, QX, RX, RCX) and includes a 5-pin double CsCAN plug and Removable Field Wiring Terminals. (HE579MIX105 shown in picture)



Mixed DC i/O Module

HORN-0008

12 Outputs per Module
1 Commons per Module
10-28VDC Operating Voltage
Output Type: Sourcing/10K Pull-Down



HE-X7A/X7 CONTROLLER

HORN-0009



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.

HE-X4A/X4 CONTROLLER

HORN-0010



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.