

# PLC/HMI CONTROLLERS\*

## LOW-COST COMPACT "ALL-IN-ONE" GRAPHICAL OCS

### \* OPERATOR CONTROL STATIONS

An Industry-First!  
The XL Series Can Store  
Data or Easily Upload  
Programs Via MicroSD™  
Memory Card.



HE-XL102, shown smaller than actual size.



HE-XT102, shown smaller than actual size.

HE-XE102, shown smaller than actual size.



- More Compact and Affordable than Separate PLC and Operator Interface
- Best of Class Graphics Display for Better Process Visualization and Machine Indication
- Built-In I/O with Removable Terminal Blocks for Easy Wiring
- Removable Mass Data Storage
- Two Serial Ports and Downloadable Protocol
- Ethernet and Telephone Modem Options Cards for Plant and Remote Connectivity

Introducing the XL Series Operator Control Station (OCS), an "all-in-one" controller, small enough to fit in the palm of your hand (only 96mm square). More than just a PLC these devices 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-recognized software package called Cscape™.

### First with Removable Memory

The XL Series is the first industrial product to include support for the latest standard in removable mass storage. Available in densities ranging from 128 MB to 2 GB, this stamp-sized memory is ideal for storing process data, machine recipes, and application files. Users can easily update the application program through this memory device—allowing logic and screen updates to be made in a single step with transportable media.

### Built-In I/O and Networking

OCS models with built-in I/O include digital, analogue and high speed I/O. For machine control, the high speed I/O can provide totalizing, frequency measurement, PWM generation and pulse outputs. The available universal analogue I/O is ideal for process control applications using thermocouple, RTD, 4 to 20 mA, ±100 mV, and 0 to 10V signals. Field installable communications options include an Ethernet card which makes machine data accessible at a plant-wide or world-wide basis. An internal 57.6k telephone modem card is also available.

### Applications

As a compact, powerful controller, the XL Series can be used in literally thousands of applications. From OEM machine control to machine monitoring in a plant environment, the XL Series can be instrumental in keeping your automation activities running smoothly.

#### Temperature Control

With built-in RTD and thermocouple available, along with auto-tune PID, the XL series can perform advanced temperature control and much more on any machine.

#### Packaging

The XL series compact size, affordable price and fast response make it a natural for packaging machinery of all types.

#### Agriculture

A small rugged package, 12 Vdc compatibility, and removable mass storage are ideal for the agricultural environment.

#### Water Treatment

The XL Series offers the perfect I/O mix, size and communications capability for pump control, tank monitoring and remote telemetry in general.

**XLe Series OCS:** All models have a PLC, operator interface, networking and I/O built-in. Controller has 256 KB of application memory and 1.2 mS/K logic scan. Operator interface features a 128 x 64 graphical display and 20-key keypad with function key and numeric entry capability.

**To Order** (Specify Model Number)

**AVAILABLE FOR FAST DELIVERY!**

MODEL NO.	DESCRIPTION
HE-XE102	DC/relay I/O: 12 DC inputs (4 HSC); 6 relay outputs (3A); 4 analogue Inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XE103	DC/DC I/O: 12 DC inputs (4 HSC); 12 DC outputs (2 PWM/pulse); 2 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XE104	DC/DC I/O: 24 DC Inputs (4 HSC); 16 DC Outputs (2 PWM/pulse); 2 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XE105	DC/DC and universal analogue I/O: 12 DC inputs (4 HSC); 12 DC outputs (2 PWM/pulse); 2 universal analogue inputs (RTD, thermocouple, 0 to 100 mV, 0 to 10V, 4 to 20 mA, selectable); 2 analogue outputs (0 to 10V, 4 to 20 mA, selectable)

**Ordering Example:** HE-XE102 XLe-series OCS with DC/relay I/O. HE-CSP100-4 software package with documentation and symbol library with 4000 plus symbols, including 9-pin and RJ-45 programming cables.

**XLt Series OCS:** All models have a PLC, operator interface, networking and I/O built-in. Controller has 256 KB of application memory and 1.2 mS/K logic scan. Operator interface features a 160 x 128 sunlight readable graphics display via a high resolution resistive touch screen, 4 function keys and a system key.

MODEL NO.	DESCRIPTION
HE-XT102	DC/relay I/O: 12 DC inputs (4 HSC); 6 relay outputs (3A); 4 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XT103	DC/DC I/O: 12 DC inputs (4 HSC); 12 DC outputs (2 PWM/pulse); 2 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XT104	DC/DC I/O: 24 DC inputs (4 HSC); 16 DC outputs (2 PWM/pulse); 2 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XT105	DC/DC and universal analogue I/O: 12 DC inputs (4 HSC); 12 DC outputs (2 PWM/pulse); 2 universal analogue inputs (RTD, thermocouple, 0 to 100 mV, 0 to 10V, 4 to 20 mA, selectable); 2 analogue outputs (0 to 10V, 4 to 20 mA, selectable)

**XL6 Series OCS:** 5.7" TFT color touchscreen with PLC, networking and I/O built-in. Controller has 256 KB of application memory and 0.2 mS/K logic scan. Operator interface features a 320 x 240 sunlight readable graphics display via a high resolution resistive touch screen, 5 function keys and a system key.

MODEL NO.	DESCRIPTION
HE-XL100	No local I/O; requires expansion I/O modules
HE-XL102	DC/relay I/O: 12 DC inputs (4 HSC); 6 relay outputs (3A); 4 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XL103	DC/DC I/O: 12 DC inputs (4 HSC); 12 DC outputs (2 PWM/pulse); 2 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XL104	DC/DC I/O: 24 DC inputs (4 HSC); 16 DC outputs (2 PWM/pulse); 2 analogue inputs (0 to 10V, 4 to 20 mA, selectable)
HE-XL105	DC/DC and universal analogue I/O: 12 DC inputs (4 HSC); 12 DC outputs (2 PWM/pulse); 2 universal analogue inputs (RTD, thermocouple, 0 to 100 mV, 0 to 10V, 4 to 20 mA, selectable); 2 analogue outputs (0 to 10V, 4 to 20 mA, selectable)

**XL Series Communication Options**

MODEL NO.	DESCRIPTION
HE-XEC	10/100 ethernet option kit, field installable
HE-XMC	57.6k telephone modem option kit, field installable
HE-XRC9	900 MHz RF modem interface

**XL Series Accessories**

MODEL NO.	DESCRIPTION
HE-CSP100-4	Cscape software package; includes CD, OCS programming cable, documentation and symbol library with 4000 plus symbols
HE500CBL300	OCS programming cable, 9-pin female (PC) to RJ-45 (OCS), 1.8 m (6')
HE500USB600	USB to RS232 adaptor cable, 1.8 m (6'); HE500CBL300 prog. cable sold separately
HE-MC1	Removable memory card, compatible with XL Series; card capacity is 256MB
HE-MR1	Memory card reader for HE-MC1; portable device allows HE-MC1 to be plugged into the USB port of personal computers as a portable hard drive
ELC-PS01	DIN rail power supply, 24V, 1 A
ELC-PS02	DIN rail power supply, 24V, 2 A

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