HORNER AUTOMATION GROUP

MADE IN USA

Class I, Division 2
Groups A, B, C, D
Type 4X

XL4 OCS

The World's Most Advanced 1/4 DIN All-In-One Controller

A milestone product setting the standard for functionality and performance.

BENEFITS

- High performance logic controller with online programming
- 3.5" QVGA color touchscreen for detailed graphics
- Built-in digital and analog I/O with (2) 500kHz high-speed counters
- 10/100 Ethernet for e-mail, web serving, FTP and Modbus/TCP
- USB 2.0 ports for programming and FLASH drive support
- 32GB microSD slot for application updates and virtually unlimited data logging

3.5" COLOR TOUCHSCREEN

The XL4 shares the same ¼ DIN form factor as our extremely popular XLe and XLt. The XL4 LCD TFT Display is full color with QVGA resolution and provides virtually instantaneous updates. Sunlight readable transflective and low-temperature versions are optional.

FULL ETHERNET BUILT INTO EVERY UNIT

The XL4 model has built-in 100Mbps Ethernet. The XL4 Ethernet support includes an integrated Web Server, FTP Host, email, Modbus/TCP Master/Slave, Programming and much more.

ONLINE PROGRAMMING & HIGH-SPEED USB 2.0

The XL4 includes two USB 2.0 ports; Host port and an on-the-go port. The Host Port allows connection of removable FLASH drives, supporting drives up to 2TB. XL4 Online Programming allows the logic program to be modified on-the-fly without entering stop mode.

ADVANCED HIGH SPEED COUNTER (>500KHZ)

The 2-channel High Speed Counter accepts frequencies exceeding 500kHz, supporting a variety of modes including Totalizing, Quadrature, Pulse Measurement, Frequency Counting and Setpoint Controlled Outputs.

WEBOCS COMPATABILITY

With Horner WebMI, you can monitor and control plant data from the palm of your hand. Published directly from the OCS Controller, WebMI allows the same or unique Web pages to be monitored and controlled from your computer, tablet or other conected device. Developed completely within our Cscape environment, WebMI allows for state-of-the-art HTML5 development without the need for web programming skills. The licensing and registration process is quick and simple while the benefits and affordability of WebMI will truly change your world.

EASY TO CONFIGURE DATA LOGGER

All of our OCS products can quickly and easily be configured for data logging. It only takes a few steps within Cscape to set up the data and frequency with which data can be logged to the on-board microSD card. Utilizing the data is just as simple – email, text, or even allow files to be transferred (.csv) via FTP.

XL4 with -106 I/O Option Board shown above

59 South State Ave., Indianapolis, IN 46201 | (p) 317.916.4274 (tf) 877.665.5666 (f) 317.639.4279 | www.hornerautomation.com

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SPECIFICATIONS AND TECHNICAL INFORMATION

GENERAL SPECIFICATIONS	
Required Power (steady state)	95mA @ 24 VDC; 190mA @ 12 VDC
Required Power (inrush)	2A for <1ms @ 24 VDC; DC switched
Primary Power Range	10 - 30 VDC
Relative Humidity	5 to 95% non-condensing
Clock Accuracy	+/-20ppm max @ 25˚C (+/-1 minute per month)
Storage Temperature	-30˚C to +70˚C
Operating Temperature*	-10˚C to +60˚C
Weight	12 oz. (340 g)
Dimensions (L x W x H)	3.780" [96mm] x 3.780" [96mm] x 2.264" [57.5mm]
UL/CE Compliance	US: http://www.heapg.com/content/21-certifications Europe: http://www.horner-apg.com/en/support/certification.aspx

CONTROL & LOGIC SPECIFICATIONS		
Control Lanaguage Support	Advanced Ladder Logic; Full IEC 1131-3 languages	
Logic Program Size	1MB, maximum	
Logic Scan Rate	0.013ms/K	
Online Programming Changes	Supported in Advanced Ladder	
I/O Support	Digital Inputs Digital Outputs Analog Inputs Analog Outputs	2048 2048 512 512
General Purpose Registers	50,000 (words) retentive 16,384 (bits) retentive 16,384 (bits) non-retentive	

*Operating temperatures below -10˚C are supported by adding -22 option at time of order

DISPLAY SPECIFICATIONS	
Display Type	3.5" TFT Tranmissive Color
Resolution	QVGA (320x240)
Color	16-bit (65,535)
Screen Memory	64MB
User-Programmable Screens	1023
Backlight	LED (50,000 hours)
Screen Update Rate	User configurable within the scan time (perceived as instantaneous in many cases)

CONNECTIVITY	
Serial Ports	1 - RS232 & 1 - RS485 on single modular jack
USB mini-B	USB 2.0 (480MHz) Programming & Data Access
USB A	USB 2.0 (480MHz) Programming & Data Access
CAN	Remote I/O, Peer-to-Peer Comms, Cscape
Ethernet	10/100Mb (Auto-MDX) Modbus TCP C/S. HTTP, FTP, SMTP, Cscape
Remote I/O	SmartRail, SmartStix, SmartBlock, SmartMod
Removable Memory	MicroSD, support for >32GB max

INPUT / OUTPUT CONNECTIVITY									
MODEL	DC In	DC Out	Relays	HS In	HS Out	mA/V In	mA/V RTD/Tc	mA/V Out	HIGH SPEED COUNTERS
Model 2	12		6	4		4			Number of Counters: 2
Model 3	12	12		4	2	2			Maximum Frequency: >500kHz
Model 4	24	16		4	2	2			Accumulator Size: 32-bits each
Model 5	12	12		4	2		2	2	MODES SUPPORTED
Model 6	12	12		4	2		6	4	Totalizer / Quadrature / Pulse Meas. / Frequency Meas.

There are 2 high-speed inputs of the total DC inputs. There are 2 high-speed outputs of the total DC outputs. Model 2, 3 & 4 feature 12-bit analog I/O. Model 5 features 14/16-bit analog I/O. Model 6 features 14/17-bit analog I/O. High-speed outputs can be used for PWM and Pulse Train outputs, currently limited to <65kHz.

2 position controlled outputs; 1 ON/OFF setpoint per output

XL4 MODEL NUMBERS

Part #	Description
HE-XC1E0	No Built-in I/O
HE-XC1E2	12 DC In, 6 Relay Out, 4 12-bit Analog In
HE-XC1E3	12 DC In, 12 DC Out, 2 12-bit Analog In
HE-XC1E4	24 DC In, 16 DC Out, 2 12-bit Analog In
HE-XC1E5	12 DC In, 12 DC Out, 2 14/16-bit Analog In (mA/V/Tc/mV/RTD), 2 12-bit Analog Out
HE-XC1E6	12 DC In, 12 DC Out, 6 – 14/17-bit Analog In (mA/V/Tc/mV/RTD), 4 – 12-bit Analog Out

EXPANSION & REMOTE I/O AND ACCESSORIES

SmartRail Modular I/O

XL Series COM Options

HE-XCK Programming Cable Kit Includes

USB Cable
Ethernet Cable
RS-232 Cable
USB/RS-232 Adapter

SmartStix Terminal Block I/O

SmartBlock Specialty I/O

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