XL4 OCS

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

The XL4 is a milestone product in the OCS Product Line. It sets the Standard for Functionality and Performance, solidifying our position as the technology leader in All-in-One Control.

High performance logic controller with online programming

3.5" QVGA color touchscreen for detailed graphics

Built-in digital & analog I/O with (2) 500kHz high-speed counters

10/100 ethernet for e-mail, web serving, FTP & Modbus/TCP

USB 2.0 ports for programming & FLASH drive support

32GB microSD slot for application updates & virtually unlimited data logging

3.5" Color Touchscreen

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

Made in the USA

CE

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

cULus

GENERAL SPECIFICATIONS		CONTROL & LOGIC SPECIFICATIONS	
Required Power (steady state)	95mA @ 24 VDC; 190mA @ 12 VDC	Control Lanaguage Support	Advanced Ladder Logic; Full IEC 1131-3 languages
Required Power (inrush)	2A for <1ms @ 24 VDC; DC switched	Logic Program Size	1MB, maximum
Primary Power Range	10 - 30 VDC	Logic Scan Rate	0.013ms/K
Relative Humidity	5 to 95% non-condensing	Online Programming Changes	Supported in Advanced Ladder
Clock Accuracy	+/-20ppm max @ 25˚C (+/-1 minute per month)	I/O Support	Digital Inputs 2048 / Digital Outputs 2048 / Analog Inputs 512 / Analog Outputs 512
Storage Temperature	–30˚C to +70˚C		
Weight	12 oz. (340 g)	General Purpose Registers	50,000 (words) retentive / 16,384 (bits) retentive / 16.384 (bits) non-retentive
Dimensions (L x W x H)	3.780" [96mm] x 3.780" [96mm] x 2.264" [57.5mm]		
UL/CE Compliance	US: https://www.heapg.com/support/product-certifications/ Europe: http://www.horner-apg/en/support/certifications.aspx		

I/O Support	
Digital Inputs	2048
Digital Outputs	2048
Analog Inputs	512
Analog Outputs	512

DISPLAY SPECIFICATIONS		CONNECTIVITY	
Display Type	3.5" TFT Tranmissive Color	Serial Ports	1 – RS232 & 1 – RS485 on single modular jack
Resolution	QVGA (320x240)	USB mini-B	USB 2.0 (480MHz) Programming & Data Access
Color	16-bit (65,535)	USB A	USB 2.0 (480MHz) Programming & Data Access
Screen Memory	64MB	CAN	Remote I/O, Peer-to-Peer Comms, Cscape
User-Programmable Screens	1023	Ethernet	10/100Mb (Auto-MDX) / Modbus TCP C/S. HTTP, FTP, SMTP, Cscape
Backlight	LED (50,000 hours)		
Screen Update Rate	User configurable within the scan time (perceived as instantaneous in many cases)	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	

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. HIgh-speed outputs can be used for PWM and Pulse Train outputs, currently limited to <65kHz.

Totalizer	Quadrature	Pulse Meas.	Frequency Meas.

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 14-bit Analog Out

HE-XCK Programming Cable Kit Includes

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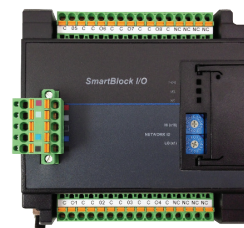Ethernet Cable
RS-232 Cable
USB/RS-232 Adapter

Expansion & Remote I/O and Accessories

SmartRail Modular I/O

SmartStix Terminal Block I/O

SmartBlock Specialty I/O

XL Series COM Options

HORNER AUTOMATION GROUP