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 Virtually Unlimited Data Logging

Made in the USA

CE

c UL us

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

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.

XL4 Specifications

General Specifications		Control & Logic Specifications		
Required Power (Steady state)	95 mA @ 24 VDC 190 mA @ 12 VDC	Control Language Support	Advanced Ladder Logic Full IEC 1131-3 Languages	
Required Power (Inrush)	2A for <1 ms @ 24 VDC DC Switched	Logic Program Size & Logic Scan Rate	1MB, maximum 0.013mS/K	
Primary Power Range	10 – 30 VDC	Online Programming Changes	Supported in Advanced Ladder	
Relative Humidity	5 to 95% Non-condensing	I/O Support	Digital Inputs	2048
Clock Accuracy	+/- 20 ppm maximum at 25° C (+/- 1 Minutes per Month)		Digital Outputs	2048
			Analog Inputs	512
Operating Temp	-10°C to +60°C		Analog Outputs	512
Storage Temp	-30°C to +70°C	General Purpose Registers	50,000 (words) Retentive	
Weight	12 oz. (340 g)		16,384 (bits) Retentive	
UL / CE	USA: http://www.heapg.com/support/product-certifications/ Europe: http://www.horner-apg.com/en/support/certification.aspx		16,384 (bits) Non-retentive	

Display Specifications		Connectivity		
Display Type	3.5" TFT Transmissive Color	Serial Ports	1 RS-232 & 1 RS-485 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) for USB FLASH Drives (2TB)	
Screen Memory	64MB	CAN	Remote I/O, Peer-to-Peer Comms, Cscape	
User-Programmable Screens	1023	Ethernet	10/100 Mb (Auto-MDX) Modbus TCP C/S, HTTP, FTP, SMTP, Cscape	
Backlight	LED – 50,000 hour life	Remote I/O	SmartRail, SmartStix, SmartBlock, SmartMod	
Screen Update Rate	User Configurable within the scan time. (perceived as instantaneous in many cases)	Removable Memory	MicroSD, support for >32GB max. Application Updates, Datalogging, more	

Input / Output Specifications										
Model	DC In	DC Out	Relays	HS In	HS Out	mA/V In	mA/V RTD/Tc	mA/V Out	High-Speed Counters	
									Number of Counters	2
Model 2	12		6	4		4			Maximum Frequency	>500kHz each
Model 3	12	12		4	2	2			Accumulator Size	32-bits each
Model 4	24	16		4	2	2			Modes Supported	
Model 5	12	12		4	2		2	2	Totalizer	Quadrature
There are 4 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.									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

Programming
Cable Kit Includes

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

HE-XCK

Expansion & Remote I/O and Accessories

SmartRail Modular I/O

SmartStix Terminal Block I/O

SmartBlock Specialty I/O

XL Series COM Options