XL4 The *Compact* All-in-One Controller

XL4 The World's Most Advanced ¼ DIN All-in-one Controller

The XL4 All-in-One controller with a built-in 32,000 colour TFT touch screen, I/O-Modules, networking options, removable MicroSD™ Card and USB ports. Programmable by Horner APG's industry recognised Cscape™ software, XL4 can control a wide range of different processes and machines from small to medium applications.

microSD (32GB)
Datalogging, Field Application Updates, Recipes, more

10/100 Ethernet
Modbus/TCP Client/Server, HTTP Web Serving, FTP, E-mail, Programming

3.5" Colour Touchscreen
QVGA Resolution, 16-bit colour, instantaneous screen updates, System Key & 4 Function Keys

USB 2.0 Host
FLASH Drive Support (up to 2TB), Firmware Updates, and lots more

USB 2.0 On-the-Go
High-speed Data & Online Programming

Digital & Analog In
DC Inputs, High Speed Counters (500kHz), 12-bit or 14-bit Analog In

Digital Outputs
DC or Relay, 2 PWM or PTO (200kHz w/opt. drivers)

RS-232 & RS-485 Serial Ports
Modbus/RTU Master & Slave, PLC /Drive Protocols & Programming

CAN Port
Local & Remote I/O, Peer-to-Peer Communications & Programming

High-performance Logic Controller
IEC 1131 Logic Programming, or Advanced Ladder Logic with Online Programming, 1MB Logic Program, 0.013mS/K Logic Scan Rate

For complete product details see www.horner-apg.com/xl4

HORNER APG

25 Years of Innovation

XL4 The Compact All-in-One Controller

For a wide range of Application

As a compact, powerful controller, XL4 can be used in literally thousands of applications from Machines to Mobile and Process Control Applications. High-speed Ethernet, CANBus and Modbus options offer you the perfect networking mix.

Model Selector

Model: HEXT251	I/O Expansion	CANbus	Digital Inputs	Digital Outputs	Analog Inputs	Analog Outputs
C100	CANBus / Modbus / Ethernet	1 Port	Same features as other models but no I/O			
C112	CANBus / Modbus / Ethernet	1 Port	12 DC (4 HSC)	6 Relay	4 (12 bit)	No
C113	CANBus / Modbus / Ethernet	1 Port	12 DC (4 HSC)	12 DC (2 PWM)	2 (12 bit)	No
C114	CANBus / Modbus / Ethernet	1 Port	24 DC (4 HSC)	16 DC (2 PWM)	2 (12 bit)	No
C115	CANBus / Modbus / Ethernet	1 Port	12 DC (4 HSC)	12 DC (2 PWM)	2 (14bit) Universal (T/C, RTD, mV,mA,V)	2 (12 bit)

General Specifications

Required Power (Steady state)	95 mA @ 24 VDC
	190 mA @ 12 VDC
Required Power (Inrush)	2A for <1 ms @ 24 VDC
	DC Switched
Primary Power Range	10 – 30 VDC
Relative Humidity	5 to 95% Non-condensing
Clock Accuracy	+/- 20 ppm maximum at 25° C
	(+/- 1 Minutes per Month)
Operating Temp	-10°C to +60°C
Storage Temp	-30°C to +70°C
Weight	12 oz. (340 g)
UL / CE	USA: http://www.heapg.com/support/product-certifications/
	Europe: http://www.horner-apg.com/en/support/certification.aspx

Display Specifications

Display Type	3.5" TFT Transmissive Colour
Resolution	QVGA (320x240)
Colour	16-bit (65,535)
Screen Memory	64MB
User-Programmable Screens	1023
Backlight	LED – 50,000 hour life
Screen Update Rate	User Configurable within the scan time.

Control & Logic Specifications

Control Language Support	Advanced Ladder Logic	
	Full IEC 61131-3 Languages	
Logic Program Size & Logic Scan Rate	1MB, maximum	
	0.013mS/K	
Online Programming Changes	Supported in Advanced Ladder	
I/O Support	Digital Inputs	2048
	Digital Outputs	2048
	Analog Inputs	512
	Analog Outputs	512
General Purpose Registers	50,000 (words) Retentive	
	16,384 (bits) Retentive	
	16,384 (bits) Non-retentive	

Connectivity

Serial Ports	1 RS-232 & 1 RS-485 on single Modular Jack
USB mini-B	USB 2.0 (480MHz) Programming & Data Access
USB A	USB 2.0 (480MHz) for USB FLASH Drives (2TB)
CAN	Remote I/O, Peer-to-Peer Comms, Cscape
Ethernet	10/100 Mb (Auto-MDX)
	Modbus TCP C/S, HTTP, FTP, SMTP, Cscape
Remote I/O	SmartRail, SmartStix, SmartBlock, SmartMod
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
Model 2	12		6	4		4		
Model 3	12	12		4	2	2		
Model 4	24	16		4	2	2		
Model 5	12	12		4	2		2	2

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-bit Analog I/O. High-speed Outputs can be used for PWM and Pulse Train Outputs, currently limited to 10 Khz (Higher Speeds Under Development) Check Web for latest Details.

High-Speed Counters

Number of Counters	2
Maximum Frequency	500kHz each
Accumulator Size	32-bits each

Modes Supported

Totalizer	Quadrature
Pulse Meas.	Frequency Meas.
2 Position Controlled Outputs	
1 ON/OFF Setpoint per Output	

OCS combines Control, Operator Interface, I/O and Network - All in One

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