

ALL-IN-ONE INTELLIGENT AND POWERFUL CONTROLS

INDUSTRY LEADING ALL-IN-ONE CONTROLLER

The XL series provides the best all-in-one, affordable control solution for OEMs, integrators and end-users by combining a robust, reliable control product with an operator interface, I/O and networking into a single compact unit. The XL Series is designed to provide you with ease of use, cost savings and flexibility for your operation, no matter the application.

With proven success across a wide variety of applications, the XL Series is ideal for:

- Custom OEM products
- Power management & back-up generation
- Semiconductor applications
- Packaging machinery
- Water treatment
- Compressor control
- Pump control
- Food processing
- Motion control
- Distributed conveyor control
- HVAC/Environmental control
- Mobile machinery
- Automotive parts manufacturing

POWERFUL, SECURE CSCAPE PROGRAMMING SOFTWARE

The XL Series, developed using a single, industry-recognized

software platform, Cscape, combines graphical ladder logic programming, operator interface development, I/O configuration and network configuration. The user friendly interface provides free form and drag & drop editor, as well as more than 100 functions to choose from. In addition to the Cscape Advanced Ladder offering, Cscape also supports the IEC 1131 programming languages.

From the Horner website, hornerautomation.com, download the Cscape software or software updates at no charge. This free service allows you to avoid costly licensing fees while always having the most up-to-date software version.

LOWER COSTS, MORE OPTIONS, EASY-TO-USE

With fully integrated hardware and software, the XL Series offers easier programming, installation, development and set-up. Our controllers have a small footprint and can easily retrofit into an existing system with little effort. The XL



Series is not limited to its 22 to 44 built-in I/O points. Block style SmartStix and Modular SmartRail I/O connects to the high speed CsCAN network and can be local or distributed. RTU/Modbus based SmartMod I/O is also a cost effective means of adding a small amount of analog I/O.

The XL Series is the first industrial product to utilize MicroSD™

Data Storage Memory, ideal for data logging, machine recipes, and

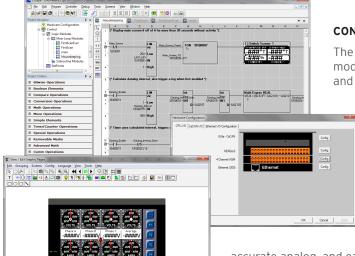
application files.



The XL Series is designed as a modular system for easy selection and growth; CsCAN (CAN Based)

high speed networking and Modbus RTU networking capabilities are standard in all XL series controllers. Ethernet is standard in the XL4, XL6e, XL7 and XL10e and available as an optional component in all other models. SmartBlocks offer both high performance,

accurate analog, and easy-to-configure digital only modules. Horner I/O has flexible communication options that easily expand current systems.



CUSTOMIZED FOR SPECIFIC OEM NEEDS

The XL series is designed to look like a white label operator station, fitting in with most cabinet, console designs, and color schemes. You can add a customized overlay to match your language, logo, and industry terms. This gives you the flexibility to use the XL series in any application.

Additionally, the XL Series can be utilized to control any machine by connecting it with our best-in-class motion control solution. Delivering a unified programming environment for application development - our suite of controllers, drives and motors will help to effectively increase productivity, performance and throughput at a competitive, cost-effective price.

controllers, drives and motors will help to effectively increase productivity, performance and throughput at a competitive, cost-effective price.

BUILT-IN DIGITAL & ANALOG I/O

	DC In	DC Out (+)	Relay Out	HSC In	Pulse 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
Model 6	12	12		4	2		6	4

XL SERIES PART NUMBERS

Model	No I/O	Model 2	Model 3	Model 4	Model 5	Model 6
XLe	HE-XE100	HE-XE102	HE-XE103	HE-XE104	HE-XE105	HE-XE106
XLt	HE-XT100	HE-XT102	HE-XT103	HE-XT104	HE-XT105	HE-XT106
XL4	HE-XC1E0	HE-XC1E2	HE-XC1E3	HE-XC1E4	HE-XC1E5	HE-XC1E6
XL6	HE-XL100	HE-XL102	HE-XL103	HE-XL104	HE-XL105	HE-XL106
XL6e	HE-XL1E0	HE-XL1E2	HE-XL1E3	HE-XL1E4	HE-XL1E5	HE-XL1E6
XL7	HE-XW1E0	HE-XW1E2	HE-XW1E3	HE-XW1E4	HE-XW1E5	HE-XW1E6
XL10e	HE-XV1E0	HE-XV1E2	HE-XV1E3	HE-XV1E4	HE-XV1E5	HE-XV1E6

XL SERIES COM OPTIONS

HE-XDACO07	2-channel Analog Out (mA/V)		
HE-XDAC107	4-channel Analog Out (mA/V)		
HE-XHSQ	24V Dual High Speed Output		
HE-XHSQ-5	5V Dual High Speed Output		
HE-XEC	Add-on Ethernet		
HE-XPBS	Profibus DP Slave		
HE-XRC9	900MHz I W Radio Modem		
HE-XMC	14.4 K Telephone Modem		
HE-GSM04*	GSM/GPRS Cellular Modem		
HE-200GPS183**	GPS Receiver		

^{*}add ANT suffix to include antenna **external unit



XL Series controllers can be expanded using SmartRail I/O



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XLe



XLt

	FEATURES
	Ladder Logic Memory
	Logic Scan Rate
	Removable Memory
Controller	Local Comment Storage
	Floating Point Support
	AutoTune PID Capable
	Motion Commands
	Characters/Pixels
	Display Technology
	Character Height
Operator	Number of Pages
Interface	Fields or Objects per Page
	Total Keys
	Function Keys
	OEM Faceplate Available
	Built-in I/O points
	SmartStix, SmartRail, SmartBlock I/O Support
1/0	Digital Inputs/Outputs, max
1/0	Analog Inputs/Outputs, max
	General Purpose Registers (words)
	General Purpose Internal Coils (bits)
	Ethernet Support
Ethernet/	Remote Access
Internet	Remote File Access
	Total Active Ports
	RS-232 Ports/RS-485 Ports
Serial	PLC/Drive Protocols
Communications	RTU/Modbus Master/Slave
	Serial ASCII In/Out
	USB Ports (A and Mini-B)
	Integrated CsCAN Network
	Maximum CsCAN Distance
Networking	Programming Over Network
	Peer-to-Peer Messaging
	Height (inches/mm)
Physical Specifications	Width (inches/mm)
	Depth (inches/mm)
	I/O Module Depth
	Operating Temperature [†]
Operating	Humidity (non-condensing)
Specifications & Standards	Product Certifications/Approvals
a Stailual us	Environmental Rating

256 KB
1.2 mS/K
microSD
yes
yes
yes
yes
128 x 64
Transflective LCD
selectable fonts
1023
50
20
10
yes
22 - 44
yes, CsCAN
2048 / 2048
512 / 512
9999
4,096
HE-XEC
via EnvisionRV
via EnvisionFX
2
RS-232 / RS-485 (x2)
yes
yes
yes
no
standard
6000 ft.
yes
yes
3.780" / 96.00 mm
3.780" / 96.00 mm
2.264" / 57.5 mm
COM option adds 0.5" / 13 mm depth
0 to 50°C
5 to 95%
UL Class 1 Div II, CE

UL Type 3R, 4, 4x, 12, 12k, 13

XLt
256 KB
1.2 mS/K
microSD
yes
yes
yes
yes
160 x 128
Transflective LCD
selectable fonts
1023
50
5
4
yes
22 - 44
yes, CsCAN
2048 / 2048
512 / 512
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COM option adds 0.5" / 13 mm depth
0 to 50°C
5 to 95%
UL Class 1 Div II, CE
UL Type 3R, 4, 4x, 12, 12k, 13

†Many OCS controllers can be provided with Extending Operating Temperatures (-22 model,) in some cases from -40° to 60°C, please contact factory for more details.



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XL4



	FEATURES					
	Ladder Logic Memory					
	Logic Scan Rate					
	Removable Memory					
Controller	Local Comment Storage					
	Floating Point Support					
	AutoTune PID Capable					
	Motion Commands					
	Characters/Pixels					
	Display Technology					
	Character Height					
Operator	Number of Pages					
Interface	Fields or Objects per Page					
	Total Keys					
	Function Keys					
	OEM Faceplate Available					
	Built-in I/O points					
	SmartStix, SmartRail, SmartBlock I/O Support					
1/0	Digital Inputs/Outputs, max					
1/0	Analog Inputs/Outputs, max					
	General Purpose Registers (words)					
	General Purpose Internal Coils (bits)					
	Ethernet Support					
Ethernet/ Internet	Remote Access					
internet	Remote File Access					
	Total Active Ports					
	RS-232 Ports/RS-485 Ports					
Serial	PLC/Drive Protocols					
Communications	RTU/Modbus Master/Slave					
	Serial ASCII In/Out					
	USB Ports (A and Mini-B)					
	Integrated CsCAN Network					
N. A	Maximum CsCAN Distance					
Networking	Programming Over Network					
	Peer-to-Peer Messaging					
	Height (inches/mm)					
Physical	Width (inches/mm)					
Specifications	Depth (inches/mm)					
	I/O Module Depth					
	Operating Temperature [†]					
Operating	Humidity (non-condensing)					
Specifications	Product Certifications/Approvals					

XL-7
1 MB
0.013 mS/K
microSD
yes
yes
yes
yes
320 x 240 (700 nits)
3.5" TFT Transmissive Color
selectable fonts
1023
1023
5
4
yes
22 - 44
yes, CsCAN & Ethernet
2048 / 2048
512 / 512
49999
32,768
standard
HTTP or EnvisionRV
FTP or EnvisionFX
2
RS-232 & RS-485 (1 of each)
yes
yes
yes
yes
standard
6000 ft.
yes
yes
3.780" / 96.0 mm
3.780" / 96.0 mm
2.264" / 57.5 mm
COM option adds 0.5" / 13 mm depth
-10 to 60°C
5 to 95%
UL Class 1 Div II, CE
UL Type 3R, 4, 4x, 12, 12k, 13

XL6
256 KB
0.2 mS/K
microSD
yes
yes
yes
yes
320 x 240
5.7" TFT Transmissive Color
selectable fonts
1023
50
6
5
yes
22 - 44
yes, CsCAN; ethernet (XL6e only)
2048 / 2048
512 / 512
9999
4,096
HE-XEC or standard (XL6e only)
HTTP (XL6e only) or via EnvisionRV
FTP (XL6e only) or via EnvisionFX
2
RS-232 / RS-485 (x2)
yes
yes
yes
yes
standard
6000 ft.
yes
yes
5.65" / 143.6 mm
7.33" / 186.1 mm
2.813" / 71.45 mm
COM option adds 0.5" / 13 mm depth
-10 to 60°C
5 to 95%
UL Class 1 Div II, CE
UL Type 3R, 4, 4x, 12, 12k, 13

†Many OCS controllers can be provided with Extending Operating Temperatures (-22 model,) in some cases from -40° to 60° C, please contact factory for more details.

Environmental Rating

& Standards

Product Certifications/Approvals



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FEATURES		XL7	XL10	XL10	EXL10
	Ladder Logic Memory	1 MB		256 KB	1 MB
	Logic Scan Rate	0.013 mS/K		0.2 mS/K	0.013 mS/K
Controller	Removable Memory	microSD		microSD	
	Local Comment Storage	yes		yes	
	Floating Point Support	yes		У	'es
	AutoTune PID Capable	yes		У	'es
	Motion Commands	yes		У	'es
	Characters/Pixels	800 x 480 (1,000 nits)		640 x 480	0 (550 nits)
	Display Technology	7" TFT Color		10.4" VGA	A TFT Color
	Character Height	selectable fonts		selectable fonts	
Operator	Number of Pages	1023		10)23
Interface	Fields or Objects per Page	1023		300	1023
	Total Keys	6			8
	Function Keys	5			7
	OEM Faceplate Available	yes		yes	
	Built-in I/O points	22 - 44		22	- 44
	SmartStix, SmartRail, SmartBlock I/O Support	yes, CsCAN & Ethernet		yes, CsCAN & Ethernet	
	Digital Inputs/Outputs, max	2048 / 2048		2048 / 2048	
1/0	Analog Inputs/Outputs, max	512 / 512		512	/ 512
	General Purpose Registers (words)	49999		9999	49999
	General Purpose Internal Coils (bits)	32.768		4.096	32768
	Ethernet Support	standard, 2 ports		standard	standard, 2 port
Ethernet/	Remote Access	HTTP or EnvisionRV		HTTP or I	EnvisionRV
Internet	Remote File Access	FTP or EnvisionFX		FTP or EnvisionFX	
	Total Active Ports	3		2	3
	RS-232 Ports/RS-485 Ports	RS-232 & RS-485; RS-232 / RS-485		RS-232 / F	RS-485 (x2)
Serial	PLC/Drive Protocols	yes			res
	RTU/Modbus Master/Slave	yes			res
	Serial ASCII In/Out	yes			'es
	USB Ports (A and Mini-B)	ves			'es
	Integrated CsCAN Network	standard	standard		ndard
	Maximum CsCAN Distance	6000 ft.			00 ft.
Networking	Programming Over Network	ves			'es
	Peer-to-Peer Messaging	yes			'es
	Height (inches/mm)	5.66" / 143.8 mm			230.6 mm
Physical Specifications	Width (inches/mm)	8.27" / 210.1 mm			303.3 mm
	Depth (inches/mm)	2.72" / 69.1 mm	,		
	I/O Module Depth	COM option adds 0.5" / 13 mm depth			0.5" / 13 mm depth
	Operating Temperature†	-10 to 60°C			60°C
Operating	Humidity (non-condensing)	5 to 95%			95%
Specifications & Standards	Product Certifications/Approvals	UL Class 1 Div II. CE		UL Class 1 Div II. CE	
	Environmental Rating	NEMA 3R, 4, 4x, 12, 12k, 13		UL Type 3R, 4, 4x, 12, 12k	
	Liviloninental Rating	INLIVIA SR, 4, 4A, IZ, IZK, IS		OL Type 3K, 2	r, ↔λ, ΙΔ, ΙΔΝ, ΙΟ
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†Many OCS controllers can be provided with Extending Operating Temperatures (-22 model,) in some cases from -40° to 60°C, please contact factory for more details.

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