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.
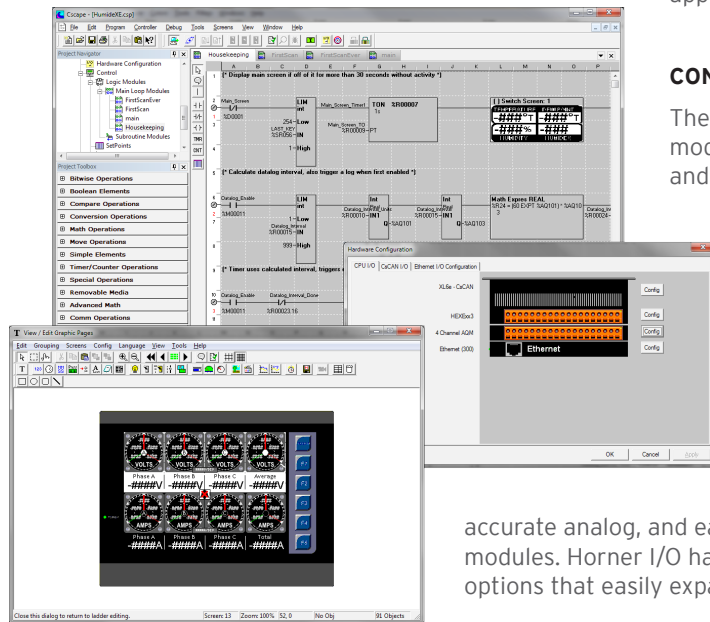
LOWER COSTS, MORE OPTIONS, EASY-TO-USE

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.

CONNECTIVITY

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.

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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-XDAC007	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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FEATURES		XLe	XLt
Controller	Ladder Logic Memory	256 KB	256 KB
	Logic Scan Rate	1.2 mS/K	1.2 mS/K
	Removable Memory	microSD	microSD
	Local Comment Storage	yes	yes
	Floating Point Support	yes	yes
	AutoTune PID Capable	yes	yes
	Motion Commands	yes	yes
Operator Interface	Characters/Pixels	128 x 64	160 x 128
	Display Technology	Transflective LCD	Transflective LCD
	Character Height	selectable fonts	selectable fonts
	Number of Pages	1023	1023
	Fields or Objects per Page	50	50
	Total Keys	20	5
	Function Keys	10	4
	OEM Faceplate Available	yes	yes
I/O	Built-in I/O points	22 - 44	22 - 44
	SmartStix, SmartRail, SmartBlock I/O Support	yes, CsCAN	yes, CsCAN
	Digital Inputs/Outputs, max	2048 / 2048	2048 / 2048
	Analog Inputs/Outputs, max	512 / 512	512 / 512
	General Purpose Registers (words)	9999	9999
	General Purpose Internal Coils (bits)	4,096	4,096
Ethernet/ Internet	Ethernet Support	HE-XEC	HE-XEC
	Remote Access	via EnvisionRV	via EnvisionRV
	Remote File Access	via EnvisionFX	via EnvisionFX
Serial Communications	Total Active Ports	2	2
	RS-232 Ports/RS-485 Ports	RS-232 / RS-485 (x2)	RS-232 / RS-485 (x2)
	PLC/Drive Protocols	yes	yes
	RTU/Modbus Master/Slave	yes	yes
	Serial ASCII In/Out	yes	yes
	USB Ports (A and Mini-B)	no	no
Networking	Integrated CsCAN Network	standard	standard
	Maximum CsCAN Distance	6000 ft.	6000 ft.
	Programming Over Network	yes	yes
	Peer-to-Peer Messaging	yes	yes
Physical Specifications	Height (inches/mm)	3.780" / 96.00 mm	3.780" / 96.00 mm
	Width (inches/mm)	3.780" / 96.00 mm	3.780" / 96.00 mm
	Depth (inches/mm)	2.264" / 57.5 mm	2.264" / 57.5 mm
	I/O Module Depth	COM option adds 0.5" / 13 mm depth	COM option adds 0.5" / 13 mm depth
Operating Specifications & Standards	Operating Temperature†	0 to 50°C	0 to 50°C
	Humidity (non-condensing)	5 to 95%	5 to 95%
	Product Certifications/Approvals	UL Class 1 Div II, CE	UL Class 1 Div II, CE
	Environmental Rating	UL Type 3R, 4, 4x, 12, 12k, 13	UL Type 3R, 4, 4x, 12, 12k, 13

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

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XL4

XL6

FEATURES		XL4	XL6
Controller	Ladder Logic Memory	1 MB	256 KB
	Logic Scan Rate	0.013 mS/K	0.2 mS/K
	Removable Memory	microSD	microSD
	Local Comment Storage	yes	yes
	Floating Point Support	yes	yes
	AutoTune PID Capable	yes	yes
	Motion Commands	yes	yes
Operator Interface	Characters/Pixels	320 x 240 (700 nits)	320 x 240
	Display Technology	3.5" TFT Transmissive Color	5.7" TFT Transmissive Color
	Character Height	selectable fonts	selectable fonts
	Number of Pages	1023	1023
	Fields or Objects per Page	1023	50
	Total Keys	5	6
	Function Keys	4	5
	OEM Faceplate Available	yes	yes
I/O	Built-in I/O points	22 - 44	22 - 44
	SmartStix, SmartRail, SmartBlock I/O Support	yes, CsCAN & Ethernet	yes, CsCAN; ethernet (XL6e only)
	Digital Inputs/Outputs, max	2048 / 2048	2048 / 2048
	Analog Inputs/Outputs, max	512 / 512	512 / 512
	General Purpose Registers (words)	49999	9999
	General Purpose Internal Coils (bits)	32,768	4,096
Ethernet/ Internet	Ethernet Support	standard	HE-XEC or standard (XL6e only)
	Remote Access	HTTP or EnvisionRV	HTTP (XL6e only) or via EnvisionRV
	Remote File Access	FTP or EnvisionFX	FTP (XL6e only) or via EnvisionFX
Serial Communications	Total Active Ports	2	2
	RS-232 Ports/RS-485 Ports	RS-232 & RS-485 (1 of each)	RS-232 / RS-485 (x2)
	PLC/Drive Protocols	yes	yes
	RTU/Modbus Master/Slave	yes	yes
	Serial ASCII In/Out	yes	yes
	USB Ports (A and Mini-B)	yes	yes
Networking	Integrated CsCAN Network	standard	standard
	Maximum CsCAN Distance	6000 ft.	6000 ft.
	Programming Over Network	yes	yes
	Peer-to-Peer Messaging	yes	yes
Physical Specifications	Height (inches/mm)	3.780" / 96.0 mm	5.65" / 143.6 mm
	Width (inches/mm)	3.780" / 96.0 mm	7.33" / 186.1 mm
	Depth (inches/mm)	2.264" / 57.5 mm	2.813" / 71.45 mm
	I/O Module Depth	COM option adds 0.5" / 13 mm depth	COM option adds 0.5" / 13 mm depth
Operating Specifications & Standards	Operating Temperature†	-10 to 60°C	-10 to 60°C
	Humidity (non-condensing)	5 to 95%	5 to 95%
	Product Certifications/Approvals	UL Class 1 Div II, CE	UL Class 1 Div II, CE
	Environmental Rating	UL Type 3R, 4, 4x, 12, 12k, 13	UL Type 3R, 4, 4x, 12, 12k, 13

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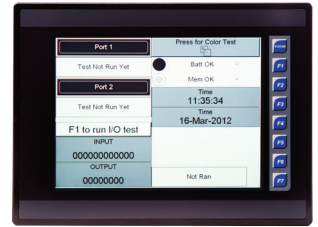
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XL7

XL10 / EXL10

FEATURES		XL7	XL10	EXL10
Controller	Ladder Logic Memory	1 MB	256 KB	1 MB
	Logic Scan Rate	0.013 mS/K	0.2 mS/K	0.013 mS/K
	Removable Memory	microSD	microSD	
	Local Comment Storage	yes	yes	
	Floating Point Support	yes	yes	
	AutoTune PID Capable	yes	yes	
	Motion Commands	yes	yes	
Operator Interface	Characters/Pixels	800 x 480 (1,000 nits)	640 x 480 (550 nits)	
	Display Technology	7" TFT Color	10.4" VGA TFT Color	
	Character Height	selectable fonts	selectable fonts	
	Number of Pages	1023	1023	
	Fields or Objects per Page	1023	300	1023
	Total Keys	6	8	
	Function Keys	5	7	
	OEM Faceplate Available	yes	yes	
I/O	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	
	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/ Internet	Ethernet Support	standard, 2 ports	standard	standard, 2 ports
	Remote Access	HTTP or EnvisionRV	HTTP or EnvisionRV	
	Remote File Access	FTP or EnvisionFX	FTP or EnvisionFX	
Serial Communications	Total Active Ports	3	2	3
	RS-232 Ports/RS-485 Ports	RS-232 & RS-485; RS-232 / RS-485	RS-232 / RS-485 (x2)	
	PLC/Drive Protocols	yes	yes	
	RTU/Modbus Master/Slave	yes	yes	
	Serial ASCII In/Out	yes	yes	
	USB Ports (A and Mini-B)	yes	yes	
Networking	Integrated CsCAN Network	standard	standard	
	Maximum CsCAN Distance	6000 ft.	6000 ft.	
	Programming Over Network	yes	yes	
	Peer-to-Peer Messaging	yes	yes	
Physical Specifications	Height (inches/mm)	5.66" / 143.8 mm	9.08" / 230.6 mm	
	Width (inches/mm)	8.27" / 210.1 mm	11.94" / 303.3 mm	
	Depth (inches/mm)	2.72" / 69.1 mm	2.43" / 61.7 mm	
	I/O Module Depth	COM option adds 0.5" / 13 mm depth	COM option adds 0.5" / 13 mm depth	
Operating Specifications & Standards	Operating Temperature†	-10 to 60°C	-10 to 60°C	
	Humidity (non-condensing)	5 to 95%	5 to 95%	
	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, 13	

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