HORNER
AUTOMATION GROUP

XL & RCC SERIES OCS

ALL-IN-ONE INTELLIGENT AND POWERFUL CONTROLS

THE INDUSTRY LEADER IN ALL-IN-ONE 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-recognised 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.eu 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, both the RCC and XL series offer easier programming, installation, development and set-up. Our controllers have a small footprint and can easily retrofit into an existing system with little effort. Neither the XL nor the RCC products are limited to their on-board I/O. Many variations of distributed remote I/O, including SmartBlock, SmartStix, and SmartMod can be connected via CsCAN, Ethernet, or Modbus. RTU/Modbus based SmartMod I/O is also a cost-effective means of adding a small amount of analogue I/O.

The XL series is the first industrial product to utilise 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 both series controllers. Ethernet is standard in the XL series of controllers, and available as an optional component in all other models. Remote I/O options offer high performance, accurate analogue, and easy-to-configure digital only modules. Horner I/O has flexible communication options that easily expand current systems.

CUSTOMISED FOR SPECIFIC OEM NEEDS

The XL series is designed to look like white label operator stations, fitting in with most cabinet, console designs, and colour schemes. You can add a customised 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 utilised 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.

THE INDUSTRY LEADER IN ALL-IN-ONE CONTROLS

BUILT-IN DIGITAL & ANALOGUE I/O

	DC In	DC Out (+)	Relay Out	HSC In*	Pulse Out**	mA/V In	mA/V RTD/TC (Universal)	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

*shared with total DC inputs
**shared with total DC outputs

XL SERIES PART NUMBERS

Model	No I/O	Model 2	Model 3	Model 4	Model 5	Model 6
XLE	HEXE220C000	HEXE220C012	HEXE220C013	HEXE220C014	HEXE220C015	HEXE220C016
XLEe	HEXE221C100	HEXE221C112	HEXE221C113	HEXE221C114	HEXE221C115	HEXE221C116
XLT	HEXT240C100	HEXT240C112	HEXT240C113	HEXT240C114	HEXT240C115	HEXT240C116
XLTe	HEXT241C100	HEXT241C112	HEXT241C113	HEXT241C114	HEXT241C115	HEXT241C116
XL4	HEXT251C100	HEXT251C112	HEXT251C113	HEXT251C114	HEXT251C115	HEXT251C116
eXL6	HEXT371C100	HEXT371C112	HEXT371C113	HEXT371C114	HEXT371C115	HEXT371C116
XL7	HEXT391C100	HEXT391C112	HEXT391C113	HEXT391C114	HEXT391C115	HEXT391C116
eXL10	HEXT505C000	HEXT505C112	HEXT505C113	HEXT505C114	HEXT505C115	HEXT505C116
XL+	HEXT751C100	HEXT751C112	HEXT751C113	HEXT751C114	HEXT751C115	HEXT751C116

XL SERIES COM OPTIONS

HEXDAC007	2-channel Analogue Out (mA/V)
HEXDAC107	4-channel Analogue Out (mA/V)
HE-XHSQ	24V Dual High Speed Output
HE-XHSQ-5	5V Dual High Speed Output
HE-XPBS	Profibus DP Slave
HE-XMC	14.4 K Telephone Modem
HE-XRC*	GSM/GPRS Cellular Modem
HE200GPS183**	GPS Receiver

not all options available across all models
*additional suffixes define technology, GPS support, and antenna; contact factory for more info
**external unit

WebMI – TAKE (REMOTE) CONTROL

With Horner WebMI, you can monitor and control plant data from the palm of your hand. Published directly from the OCS Controller, WebMI allows the same or unique Web pages to be monitored and controlled from your computer, tablet or other mobile device, supporting all our controllers except the XLE and XLT. Developed completely within our Cscape environment, WebMI allows for state-of-the-art HTML5 development without the need for web programming skills. The licensing and registration process is quick and simple while the benefits and affordability of WebMI will truly change your world.

Cscape Configurability
Implement your OCS application remotely without any manual HTML development.

Level-Based, Object Security
From graphic objects to application commands – you control who can do what.

IOT – Internet of Things
Instantly connect to your automated applications to grow and improve business.

HTML5
Instantly deliver almost everything you want to accomplish online to your web browser.

Scalable Vector Graphics (SVG)
Sharp, clear, and professional screens regardless of the device you use, any size.
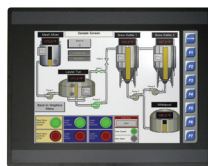
Licensing Capabilities
On or off-line licensing packages that will work within your organisational scope.

webOCS

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FEATURES		XLE | XLEe	XLT | XLTe	XL4	EXL6	XL7
Controller	Ladder Logic Memory	256 KB	256 KB	1 MB	1 MB	1 MB
	Logic Scan Rate	0.7 mS/K	0.8 mS/K	0.013 mS/K	0.013 mS/K	0.013 mS/K
	Removable Memory	microSD	microSD	microSD	microSD	microSD
	Local Comment Storage	Yes	Yes	Yes	Yes	Yes
	Floating Point Support	Yes	Yes	Yes	Yes	Yes
	AutoTune PID Capable	Yes	Yes	Yes	Yes	Yes
	Motion Commands (CANOpen)	Yes	Yes	Yes	Yes	Yes
Operator Interface	Characters/Pixels	128 x 64	160 x 128	320 x 240 (QVGA)	640 x 480 (VGA)	800 x 480 (WVGA)
	Display Technology	Transflective LCD	Transflective LCD	3.5" TFT Colour	5.7" TFT Colour	7" TFT Colour
	Character Height	Selectable Fonts	Selectable Fonts	Selectable Fonts	Selectable Fonts	Selectable Fonts
	Number of Pages	1023	1023	1023	1023	1023
	Fields or Objects per Page	50	50	1023	1023	1023
	Total Keys	20	5	5	6	6
	Function Keys	10	4	4	5	5
	OEM Faceplate Available	Yes	Yes	Yes	Yes	Yes
I/O	Built-in I/O points	22 - 44	22 - 44	22 - 44	22 - 44	22 - 44
	SmartStix, SmartRail, SmartBlock I/O Support	CsCAN | CsCAN, ENT	CsCAN | CsCAN, ENT	Yes, CsCAN & Ethernet	Yes, CsCAN & Ethernet	Yes, CsCAN & Ethernet
	Digital Inputs/Outputs, Max	2048 / 2048	2048 / 2048	2048 / 2048	2048 / 2048	2048 / 2048
	Analogue Inputs/Outputs, Max	512 / 512	512 / 512	512 / 512	512 / 512	512 / 512
	General Purpose Registers (words)*	9999	9999	50000	50000	50000
	General Purpose Internal Coils (bits)	4096 (2048 retentive)	4096 (2048 retentive)	32768 (16384 ret.)	32768 (16384 retentive)	32768 (16384 retentive)
Ethernet/ Internet	Ethernet Support	No | Yes	No | Yes	Standard	Standard	Standard, 2 Ports
	Remote Access	EnvisionRV	EnvisionRV	HTTP or EnvisionRV	HTTP or EnvisionRV	HTTP or EnvisionRV
	Remote File Access	EnvisionFX	EnvisionFX	FTP or EnvisionFX	FTP or EnvisionFX	FTP or EnvisionFX
	WebOCS Compatibility (Licensed Option)	No | WebMI	No | WebMI	WebMI	WebMI	WebMI
Serial Communications	Serial Ports	2	2	2	3	3
	RS-232 Ports/RS-485 Ports	RS-232 / RS-485 (x2)	RS-232 / RS-485 (x2)	RS-232 & RS-485 (1 of each)	RS-232 & RS-485; RS-232 / RS-485	RS-232 & RS-485; RS-232 / RS-485
	PLC/Drive Protocols	Yes	Yes	Yes	Yes	Yes
	RTU/Modbus Master/Slave	Yes	Yes	Yes	Yes	Yes
	Serial ASCII In/Out	Yes	Yes	Yes	Yes	Yes
	USB Ports (A and Mini-B)	Programming Only	Programming Only	Yes	Yes	Yes
Networking	Integrated CsCAN Network	Standard	Standard	Standard	Standard	Standard
	Maximum CsCAN Distance**	1640 ft.	1640 ft.	1640 ft.	1640 ft.	1640 ft.
	Programming Over Network	Yes	Yes	Yes	Yes	Yes
	Peer-to-Peer Messaging	Yes	Yes	Yes	Yes	Yes
Physical Specifications	Height (inches/mm)	3.78" / 96.0 mm	3.78" / 96.0 mm	3.78" / 96.0 mm	5.65" / 143.6 mm	5.66" / 143.8 mm
	Width (inches/mm)	3.78" / 96.0 mm	3.78" / 96.0 mm	3.78" / 96.0 mm	7.33" / 186.1 mm	8.27" / 210.1 mm
	Depth (inches/mm)	2.26" / 57.5 mm	2.26" / 57.5 mm	2.26" / 57.5 mm	1.84" / 46.6 mm	2.72" / 69.1 mm
	I/O Module Depth	COM option adds 0.5"/13 mm depth	COM option adds 0.5"/13 mm depth	COM option adds 0.5"/13 mm depth	COM option adds 0.857" / 22.225 mm depth	COM option adds 0.5" / 13 mm depth
Operating Specifications & Standards	Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C
	Humidity (non-condensing)	5 to 95%	5 to 95%	5 to 95%	5 to 95%	5 to 95%
	Product Certifications/Approvals	UL Class 1 Div II, CE	UL Class 1 Div II, CE	UL Class 1 Div II, CE	UL Class 1 Div II, CE	UL Class 1 Div II, CE
	Environmental Rating	UL Type 1, 3R, 4, 4x, 12, 12k, 13, ABS	UL Type 1, 3R, 4, 4x, 12, 12k, 13, ABS	UL Type 1, 3R, 4, 4x, 12, 12k, 13, ABS	UL Type 1, 3R, 4, 4x, 12, 12k, 13	UL Type 1, 3R, 4, 4x, 12, 12k, 13, ABS

*Actual retentive register count may vary from model to model, please contact factory for more details **Please refer to CsCAN Installation Manual

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	FEATURES	EXL10	XL+	RCC972	RCC1410
Controller	Ladder Logic Memory	1 MB	1 MB	128KB	128KB
	Logic Scan Rate	0.013 mS/K	0.006 mS/K	0.013 mS/K	0.013 mS/K
	Removable Memory	microSD	microSD	microSD	microSD
	Local Comment Storage	Yes	Yes	Yes	Yes
	Floating Point Support	Yes	Yes	Yes	Yes
	AutoTune PID Capable	Yes	Yes	Yes	Yes
	Motion Commands (CANOpen)	Yes	Yes	Yes	Yes
Operator Interface	Characters/Pixels	640 x 480 (VGA)	1024 x 768 (XGA)	N/A	N/A
	Display Technology	10.4" VGA TFT Colour	15" XGA TFT Colour	N/A	N/A
	Character Height	Selectable Fonts	Selectable Fonts	N/A	N/A
	Number of Pages	1023	1023	N/A	N/A
	Fields or Objects per Page	1023	1023	N/A	N/A
	Total Keys	8	8 (on screen)	N/A	N/A
	Function Keys	7	7 (on screen)	N/A	N/A
	OEM Faceplate Available	Yes††	No	N/A	N/A
I/O	Built-in I/O points	22 - 44	22 - 44	24	24
	SmartStix, SmartRail, SmartBlock I/O Support	Yes, CsCAN & Ethernet	Yes, CsCAN & Ethernet	Yes, CsCAN & Ethernet	Yes, CsCAN & Ethernet
	Digital Inputs/Outputs, Max	2048 / 2048	2048 / 2048	2048 / 2048	2048 / 2048
	Analogue Inputs/Outputs, Max	512 / 512	512 / 512	512 / 512	512 / 512
	General Purpose Registers (words)*	50000	50000	50000	50000
	General Purpose Internal Coils (bits)	32768 (16384 retentive)	32768 (16384 retentive)	32768 (16384 retentive)	32768 (16384 retentive)
Ethernet/ Internet	Ethernet Support	Standard, 2 Ports	Standard, 2 Ports	Standard	Standard
	Remote Access	HTTP or EnvisionRV	HTTP or EnvisionRV	HTTP or EnvisionRV	HTTP or EnvisionRV
	Remote File Access	FTP or EnvisionFX	FTP or EnvisionFX	FTP or EnvisionFX	FTP or EnvisionFX
	WebOCS Compatibility (Licensed Option)	WebMI	WebMI	WebMI	WebMI
Serial Communications	Serial Ports	3	3	1	2
	RS-232 Ports/RS-485 Ports	RS-232 & RS-485; RS-232 / RS-485	RS-232 & RS-485; RS-232 / RS-485	RS-232	RS-232 & RS-485
	PLC/Drive Protocols	Yes	Yes	Yes	Yes
	RTU/Modbus Master/Slave	Yes	Yes	Yes	Yes
	Serial ASCII In/Out	Yes	Yes	Yes	Yes
	USB Ports (A and Mini-B)	Yes	Yes	No	No
Networking	Integrated CsCAN Network	Standard	Standard	Standard	Standard
	Maximum CsCAN Distance**	1640 ft.	1640 ft.	1640 ft.	1640 ft.
	Programming Over Network	Yes	Yes	Yes	Yes
	Peer-to-Peer Messaging	Yes	Yes	Yes	Yes
Physical Specifications	Height (inches/mm)	9.08" / 230.6 mm	12.60" / 320.0 mm	4.37" / 111.0 mm	4.37" / 111.0 mm
	Width (inches/mm)	11.94" / 303.3 mm	14.57" / 175.5 mm	4.57" / 116.0 mm	4.57" / 116.0 mm
	Depth (inches/mm)	2.43" / 61.7 mm	4.08" / 103.6 mm	1.41" / 35.8 mm	1.41" / 35.8 mm
	I/O Module Depth	COM option adds 0.5" / 13 mm depth	COM option adds 0.5" / 13 mm depth	N/A	N/A
Operating Specifications & Standards	Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C
	Humidity (non-condensing)	5 to 95%	5 to 95%	5 to 95%	5 to 95%
	Product Certifications/Approvals	UL Class 1 Div II, CE	UL Class 1 Div II, CE	UL Class 1 Div II, CE	UL Class 1 Div II, CE
	Environmental Rating	UL Type 1, 3R, 4, 4x, 12, 12k, 13	UL Type 1, 3R, 4, 4x, 12, 12k, 13, ABS	IP20	IP20

*Actual retentive register count may vary from model to model, please contact factory for more details
**Refer to CsCAN Installation Manual

††To be ordered by Horner, includes keypad

NOTE: RCC972 does not have a real time clock.

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R C C   S E R I E S

FEATURES		RCC8842	RCC2414
Controller	Ladder Logic Memory	128KB	128KB
	Logic Scan Rate	0.013 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 (CANOpen)	Yes	Yes
Operator Interface	Characters/Pixels	N/A	N/A
	Display Technology	N/A	N/A
	Character Height	N/A	N/A
	Number of Pages	N/A	N/A
	Fields or Objects per Page	N/A	N/A
	Total Keys	N/A	N/A
	Function Keys	N/A	N/A
	OEM Faceplate Available	N/A	N/A
I/O	Built-in I/O points	22	11
	SmartStix, SmartRail, SmartBlock I/O Support	Yes, CsCAN & Ethernet	Yes, CsCAN & Ethernet
	Digital Inputs/Outputs, Max	2048 / 2048	2048 / 2048
	Analogue Inputs/Outputs, Max	512 / 512	512 / 512
	General Purpose Registers (words)*	50000	50000
	General Purpose Internal Coils (bits)	32768 (16384 retentive)	32768 (16384 retentive)
Ethernet/ Internet	Ethernet Support	Standard	Standard, 2 Ports
	Remote Access	HTTP or EnvisionRV	HTTP or EnvisionRV
	Remote File Access	FTP or EnvisionFX	FTP or EnvisionFX
	WebOCS Compatibility (Licensed Option)	WebMI	WebMI
Serial Communications	Serial Ports	2	2
	RS-232 Ports/RS-485 Ports	RS-232 & RS-485	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	Yes
Networking	Integrated CsCAN Network	Standard	Standard
	Maximum CsCAN Distance**	1640 ft.	1640 ft.
	Programming Over Network	Yes	Yes
	Peer-to-Peer Messaging	Yes	Yes
Physical Specifications	Height (inches/mm)	4.37" / 111.0 mm	4.37" / 111.0 mm
	Width (inches/mm)	4.57" / 116.0 mm	4.57" / 116.0 mm
	Depth (inches/mm)	1.41" / 35.8 mm	1.41" / 35.8 mm
	I/O Module Depth	N/A	N/A
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	IP20	IP20

*Actual retentive register count may vary from model to model, please contact factory for more details
**Please refer to CsCAN Installation Manual