BUILT-IN, STREAMLINED I/O

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INDUSTRY LEADING ALL-IN-ONE CONTROLLER

Our **Micro OCS** line of products introduces a series of fixed I/O controllers with exceptional performance and a streamlined ordering and pricing structure. These powerful and efficient controllers are well-suited to perform many of the same high-end applications as our popular XL series at the price point of an introductory component – value engineering hard at work.

With proven success across a wide variety of applications, the Micro OCS 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

The **Micro OCS** family of products incorporates a similar all-in-one construction as with the XL series. By providing a fixed array of I/O, however, the Micro OCS Series provides a streamlined approach to the market. Applications that do not require the power of the XL products are perfectly suited to our Micro OCS line of products.

POWERFUL, SECURE CSCAPE PROGRAMMING SOFTWARE

The Micro OCS 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, the Micro OCS Series offers easy programming, installation, development and set-up. Our controllers have a small footprint and can easily retrofit into an existing system with little effort. None of our Micro OCS 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 analog I/O.

The Micro OCS Series utilises MicroSD™ Data Storage Memory, ideal for data logging, machine recipes, and application files.

CONNECTIVITY

The Micro OCS 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 our X5 and available as an optional component in our X4. 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.

BUILT-IN DIGITAL & ANALOGUE I/O

	DC In	DC Out	Relay Out	HSC In*	Pulse Out*	Analogue Inputs	Analogue Outputs
X2A	12	12		4	2	4 (current)	2 (current)
X2R	12	2	6	4	2	4 (current)	2 (current)
X4A	12	12		4	2	4 (current / RTD)	2 (current)**
X4R	12	2	6	4	2	4 (current / RTD)	2 (current)**
X5	4	4		4	2	4 (current / volts)	
X7A	12	12		4	2	4 (current / RTD)	2 (current)**
X7R	12	2	6	4	2	4 (current / RTD)	2 (current)**

*High Speed I/O is shared with DC In and DC Out
**Use of more than 2 RTD Inputs negates the ability to utilise Analogue Outputs

HORNER AUTOMATION GROUP

MICRO OCS SERIES

FIXED/STANDARD I/O, EXCEPTIONAL PERFORMANCE

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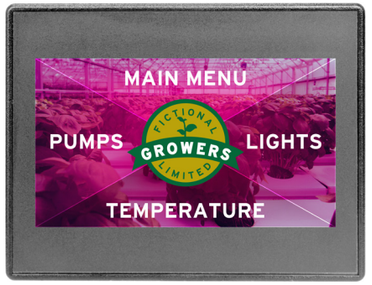

FEATURES		X2	X4	X5	X7
Controller	Ladder Logic Memory	256 kB	256 kB	256 kB	256 kB
	Logic Scan Rate	1.2 mS/K	0.4 mS/K	0.013 mS/K	0.4 mS/K
	Removable Memory	microSD	microSD	microSD	microSD
	Real Time Clock	Yes	Yes	Yes	Yes
	Floating Point Support	Yes (32-bit)	Yes (32-bit)	Yes (64-bit)	Yes (32-bit)
	AutoTune PID Loops	Yes (4 loops)	Yes (4 loops)	Yes (32 loops)	Yes (4 loops)
Operator Interface	Resolution	128 x 64	480 x 272	480 x 272	800 x 480
	Display Technology	LCD with LED Transflective	LCD with LED 300 nits	LCD with LED 450 nits	LCD with LED 350 nits
	Number of Pages	250	250	1023	250
	Fields or Objects per Page	15	30	50	30
	Total Keys	20	5 (on screen)	5 (on screen)	5 (on screen)
	Function Keys	10	4 (on screen)	4 (on screen)	4 (on screen)
	Built-In Storage	16 MB	32 MB	128 MB	32 MB
I/O	Built-In I/O points	Model A - 30 | Model R - 26	Model A - 30 | Model R - 26	12	Model A - 30 | Model R - 26
	High Speed Counter (HSC)	Freq., Pulse, Quad., Total	Freq., Pulse, Quad., Total, 500 kHz	Advanced, 500 kHz	Freq., Pulse, Quad., Total, 500 kHz
	SmartStix, SmartRail, SmartBlock I/O Support	Yes - CsCAN	Yes - CsCAN & Ethernet	Yes - CsCAN & Ethernet	Yes - CsCAN & Ethernet
	Digital Inputs/Outputs, Max	1024 / 1024	1024 / 1024	2048 / 2048	1024 / 1024
	Analogue Inputs/Outputs, Max	256 / 256	256 / 256	512 / 512	256 / 256
	General Purpose Registers (words)	5000	5000	9999 (1024 retentive)	5000
	General Purpose Internal Coils (bits)	1024	1024	2048 (1024 retentive)	1024
Ethernet/ Internet	Ethernet Support	No	Standard	Standard	Standard
	Remote Access	EnvisionRV	HTTP or EnvisionRV	HTTP or EnvisionRV	HTTP or EnvisionRV
	Remote File Access	EnvisionFX	FTP or EnvisionFX	FTP or EnvisionFX	FTP or EnvisionFX
	WebOCS Compatibility*	No	Yes - 2 Connections	Yes - 4 Connections	Yes - 2 Connections
Serial Communications	RS-232 Ports/RS-485 Ports	1 x RS-232 and 1 x RS-485 on shared connector	1 x RS-232 and 1 x RS-485 on shared connector	1 x RS-232 and 1 x RS-485 on shared connector	1 x RS-232 and 1 x RS-485 on shared connector
	PLC/Drive Protocols	Limited	Limited	Yes	Limited
	RTU/Modbus Master/Slave	Yes	Yes	Yes	Yes
	Serial ASCII In/Out	Yes	Yes	Yes	Yes
	USB Port A	No	No	Yes (flash or hard drive support)	No
	USB Port Mini-B	Yes (programming)	Yes (programming)	Yes (programming)	Yes (programming)
Networking	Integrated CsCAN Network	Standard	Standard	Standard	Standard
	Programming Over Network	Yes	Yes	Yes	Yes
	Peer-to-Peer Messaging	Yes	Yes	Yes	Yes
Physical Specifications	Height (mm/inches)	119.2mm / 4.69"	89.7mm / 3.53"	89.7mm / 3.53"	143.5mm / 5.65"
	Width (mm/inches)	89.7mm / 3.53"	119.2mm / 4.69"	119.2mm / 4.69"	186.08mm / 7.33"
	Depth (mm/inches)	35.8mm / 1.40"	35.8mm / 1.40"	35.8mm / 1.40"	46.6mm / 1.34"

*Licensed option
**For UL and CE Standards, visit the specific product pages for these items on our website

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