

# THE INDUSTRY LEADER IN ALL-IN-ONE CONTROLS



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## INDUSTRY LEADING ALL-IN-ONE CONTROLLER

For years, the Horner XL and XL Prime Series have enjoyed a reputation as the most highly functional All-in-one Controllers available anywhere. These products are currently trusted with thousands of applications world-wide.

The NEW Canvas Collection builds upon that proven reputation. Horner's Canvas Series of OCS controllers is just as the name implies - a new canvas for users to utilize a brand new set of enhanced graphics objects in Cscape 10 to give full creative freedom to create screens as technically advanced or as visually stunning as they desire. Take advantage of single touch swipe gestures and a redesigned system menu to build your application for the modern world. The Canvas Series also supports WebMI+ as the next iteration of one of the best remote access tools for your OCS controllers, and also offers MQTT Sparkplug, numerous CAN protocols and Enhanced IEC programming support right out of the box with no licensing fees.

If you are a new automation designer looking for an innovative, reliable control solution - the Canvas Collection offers a fully integrated product in hardware and software. If you are an existing XL Series or XL Prime Series user - your current application program will port straight through in less than 30 seconds. In either case you can't go wrong!

- **ALL-IN-ONE CONTROL** - performs all machine functions in a unified hardware design; logic control, operator interface, I/O and networking.
- **VIBRANT COLOR TOUCHSCREENS** - Design modern and responsive machine control dashboards.
- **ALL NEW GRAPHICS OBJECTS** - Designed from the ground up with all-new graphics. Trending, recipes, alarms - all redesigned with a modern look and fully featured.
- **MULTI-CORE MICROPROCESSOR** - Fast, consistent scan times with separate, dedicated CPU cores for logic and graphics
- **FLEXIBLE LOGIC LANGUAGES** - Use the logic language of your choice - Advanced Ladder Logic or the IEC 6-1131 languages.
- **INDUSTRIAL ETHERNET** - Fast and flexible Ethernet with Ethernet IP, Modbus TCP, BACnet IP; FTP file transfer and Email.
- **IIOT & REMOTE CONTROL** - Push data to the cloud with MQTT Sparkplug. Remotely monitor and control the machine with WebMI+ from a web browser. No extra licenses required!
- **OCS360 CLOUD SERVICE READY** - Canvas is pre-configured to support Horner's upcoming OCS360 Cloud Service

## PROGRAM CANVAS USING CSCAPE 10

To support all the major innovations we have packed into Canvas, we're introducing Cscape 10 - a major update to our free application development software. With Cscape 10, you'll develop graphics screens in tabs side-by-side with your logic routines. And with Canvas your screens can take advantage of fully redesigned objects such as our all-new Alarm Handler, Recipe Editor and Video Player. If graphs and trends are a critical element of your machine - Canvas offers all-new XY Graphs, Scatter Graphs and Trend Graphs. Trend Graphs support up to 16 pens, multiple Y-Axes and historical logging to microSD.

## SMALL FOOTPRINT, EASY-TO-USE WITH PLENTY OF I/O

With fully integrated hardware and software, Canvas offers easier programming, installation and set-up than a separate PLC and HMI in a smaller footprint. Does your system require a lot of I/O? Canvas is not limited to on-board I/O only. Easily expand your I/O system using OCS-I/O, our innovative new Horner I/O system. Or choose one of our other established I/O series including SmartRail, SmartStix or SmartBlock. Add I/O in the same control panel or distribute it on the machine or throughout the facility. Whatever fits your requirements.

## CONNECTIVITY

Canvas is designed to connect seamlessly in almost any environment. For the factory, Ethernet IP and Modbus TCP interact easily with just about any automation component. BACnet IP is the choice in modern Building Automation systems. With CAN, add I/O (CsCAN), connect to a fieldbus (CANopen) or mobile network (J1939). And with RS232/485 use Modbus RTU or another protocol to interface to variable frequency drives, bar code scanners or legacy equipment.

## IIOT & AI READY WITH MQTT

Canvas also fully enables your machine for Industry 4.0 - the Industrial Internet of Things (IIoT) revolution. Canvas is pre-configured to connect to the Horner Cloud - OCS360. If you opt-in to this data collection service - you'll be gathering machine data in no time - collecting data you'll need in the future for data hungry advancements like AI Machine Learning.

If Inductive Automation® Ignition is your SCADA of choice, Canvas' built-in MQTT Sparkplug will push data to Ignition efficiently.



## BUILT-IN DIGITAL & ANALOG I/O

	DC In	DC Out (+)	Relay Out	HSC In	Pulse Out	mA/V In	mA/V RTD/TC (Universal)	mA/V Out
Model 1*	4	4		4	2	4		
Model 0								
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

† Model 1 applies to the Canvas 5 only

## BUILT-IN I/O OPTIONS

HE-XDAC007	2-channel Analog Out (mA/V)
HE-XDAC107	4-channel Analog Out (mA/V)
HE-XHSO	24V Dual High Speed Output
HE-XHSO-5	5V Dual High Speed Output

## CANVAS COLLECTION PART NUMBERS

Model	Model 0 No I/O	Model 2	Model 3	Model 4	Model 5	Model 6
Canvas 5	HE-CV-043C-01 - Model 1, see specifications above					
Canvas 4	HE-CV-035C-00	HE-CV-035C-02	HE-CV-035C-03	HE-CV-035C-04	HE-CV-035C-05	HE-CV-035C-06
Canvas 7	HE-CV-070C-00	HE-CV-070C-02	HE-CV-070C-03	HE-CV-070C-04	HE-CV-070C-05	HE-CV-070C-06
Canvas 7D	HE-CV-070D-00	HE-CV-070D-02	HE-CV-070D-03	HE-CV-070D-04	HE-CV-070D-05	HE-CV-070D-06
Canvas 10D	HE-CV-101D-00	HE-CV-101D-02	HE-CV-101D-03	HE-CV-101D-04	HE-CV-101D-05	HE-CV-101D-06

## CANVAS REMOTE I/O OPTIONS

OCS-I/O	Base offers 2 Flexible Inputs (Digital or Analog), 1 Digital Output, 1 Universal Analog Inputs, 1 Analog Outputs. Add-on modules available for expandability.
SMARTRAIL	Expands the I/O capacity of any Canvas controller. Uses either CANbus or Ethernet communications and can be installed locally or remotely.
SMARTBLOCK	Provides easy configuration and network expansion using CsCAN communications.
SMARTSTIX	A cost-effective options as expansion or remote I/O which is also compact. Uses CsCAN communications.

## WebMI+ & OCS360 - TAKE (REMOTE) CONTROL

Canvas includes WebMI+, to monitor or control your machine from the palm of your hand using any mobile device or web browser. Your remote view can match Canvas screens exactly, or be developed using Cscape 10 as custom, high resolution web views. WebMI+ screens are published directly from Canvas OCS. But future Horner services will provide a variety of site management capabilities - including serving up WebMI+ web pages at a high bandwidth with more simultaneous views.



### Configure WebMI+ in Cscape 10

Implement your OCS web pages without any manual HTML development.



### User Level Security

Choose View-only or Full Control - Object by object & user by user



### IIOT - Industrial Internet of Things

Instantly connect to your automated applications for instant status and live data.



### HTML5

Deliver Machine Snapshots or Custom Web Views to any web browser



### Scalable Vector Graphics (SVG)

Sharp, clear, and professional screens regardless of the device or screen resolution.



### Future Ready with OCS360

Canvas is pre-configured to support Horner's upcoming OCS360 cloud service



## CANVAS COLLECTION



THE WORLD'S MOST ADVANCED  
ALL-IN-ONE CONTROLLER  
JUST SURPASSED ITSELF!

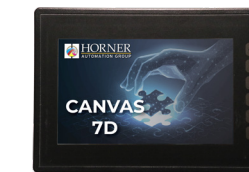
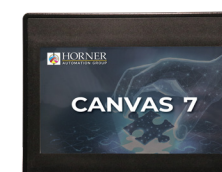




Compliant



# CANVAS COLLECTION



FEATURES	
<b>Controller</b>	Ladder Logic Memory
	Logic Scan Rate
	Removable Memory
	Local Comment Storage
	Floating Point Support
<b>Operator Interface</b>	AutoTune PID Capable
	Characters/Pixels
	Display Technology
	Brightness
	Character Height
	Number of Screens
	Fields or Objects per Screen
	Function Keys
	OEM Faceplate Available
	Built-in I/O points
<b>I/O</b>	Add on - SmartStix, SmartRail, SmartBlock, SmartMod
	Digital Inputs/Outputs, Max
	Analog Inputs/Outputs, Max
	General Purpose Registers (words)*
	General Purpose Internal Coils (bits)
<b>Ethernet/Internet</b>	Ethernet Support
	Remote Access
	Remote File Access
	WebMI Compatibility
<b>Serial Communications</b>	Serial Ports
	RS-232 Ports/RS-485 Ports
	PLC/Drive Protocols
	RTU/Modbus Master/Slave/Serial ASCII In/Out
	USB Port - USB 2.0 port A
	USB Port
<b>Networking</b>	CAN Network Support
	Maximum CsCAN Distance**
	Programming Over Network
	Peer-to-Peer Messaging
<b>Physical Specifications</b>	Height (inches/mm)
	Width (inches/mm)
	Depth (inches/mm)
	I/O Module Depth
<b>Operating Specifications &amp; Standards</b>	Operating Temperature
	Humidity (non-condensing)
	Product Certifications/Approvals
	Environmental Rating

Canvas 4	
Controller	2MB
Logic Scan Rate	0.02mS/K
Removable Memory	microSD
Local Comment Storage	Yes
Floating Point Support	Yes
AutoTune PID Capable	Yes
Operator Interface	320x240
Display Technology	3.5" QVGA
Brightness	640 nits
Character Height	Selectable Fonts
Number of Screens	1023
Fields or Objects per Screen	1023
Function Keys	4 + System Key
OEM Faceplate Available	Yes
Built-in I/O points	22 - 42
Add on - SmartStix, SmartRail, SmartBlock, SmartMod	CsCAN & Ethernet
Digital Inputs/Outputs, Max	2048 / 2048
Analog Inputs/Outputs, Max	512 / 512
General Purpose Registers (words)*	50,000
General Purpose Internal Coils (bits)	32768 (16384 ret.)
Ethernet Support	Standard
Remote Access	HTTP or EnvisionRV
Remote File Access	FTP or EnvisionFX
WebMI Compatibility	Yes
Serial Ports	2
RS-232 Ports/RS-485 Ports	RS-232 & RS485 (1 of each)
PLC/Drive Protocols	Yes
RTU/Modbus Master/Slave/Serial ASCII In/Out	Yes
USB Port - USB 2.0 port A	Datalog & Backup
USB Port	Mini B - Programming Only
CAN Network Support	CsCAN, CANopen, DeviceNet, J1939
Maximum CsCAN Distance**	1640 ft.
Programming Over Network	Yes
Peer-to-Peer Messaging	Yes
Height (inches/mm)	3.78" / 96.0 mm
Width (inches/mm)	3.78" / 96.0 mm
Depth (inches/mm)	2.26" / 57.5 mm
I/O Module Depth	COM opt adds 0.5"/13mm depth
Operating Temperature	-10 to 60°C (-40°C option available)
Humidity (non-condensing)	5 to 95%
Product Certifications/Approvals	UL Class 1 Div II, CE
Environmental Rating	UL Type 1, 3R, 4, 4x, 12, 12k, 13

Canvas 5	
Controller	2MB
Logic Scan Rate	0.02mS/K
Removable Memory	microSD
Local Comment Storage	Yes
Floating Point Support	Yes
AutoTune PID Capable	Yes
Operator Interface	480 x 272
Display Technology	4.3" LCD with LED
Brightness	450 nits
Character Height	Selectable Fonts
Number of Screens	1023
Fields or Objects per Screen	1023
Function Keys	4 + System Key
OEM Faceplate Available	Yes
Built-in I/O points	12
Add on - SmartStix, SmartRail, SmartBlock, SmartMod	CsCAN & Ethernet
Digital Inputs/Outputs, Max	2048 / 2048
Analog Inputs/Outputs, Max	512 / 512
General Purpose Registers (words)*	50,000
General Purpose Internal Coils (bits)	16384
Ethernet Support	Yes
Remote Access	EnvisionRV
Remote File Access	EnvisionFX
WebMI Compatibility	Yes
Serial Ports	2
RS-232 Ports/RS-485 Ports	RS-232 / RS485 (x2)
PLC/Drive Protocols	Yes
RTU/Modbus Master/Slave/Serial ASCII In/Out	Yes
USB Port - USB 2.0 port A	Datalog & Backup
USB Port	Mini B - Programming Only
CAN Network Support	CsCAN, CANopen, DeviceNet, J1939
Maximum CsCAN Distance**	1640 ft.
Programming Over Network	Yes
Peer-to-Peer Messaging	Yes
Height (inches/mm)	3.79" / 96 mm
Width (inches/mm)	4.92" / 125 mm
Depth (inches/mm)	1.22" / 31 mm
I/O Module Depth	COM opt adds 0.5"/13mm depth
Operating Temperature	-10 to 60°C
Humidity (non-condensing)	5 to 95%
Product Certifications/Approvals	UL Class 1 Div II, CE
Environmental Rating	UL Type 1, 3R, 4, 4x, 12, 12k, 13

Canvas 7	
Controller	2MB
Logic Scan Rate	0.02mS/K
Removable Memory	microSD
Local Comment Storage	Yes
Floating Point Support	Yes
AutoTune PID Capable	Yes
Operator Interface	800 x 480
Display Technology	7" WVGA
Brightness	420 nits
Character Height	Selectable Fonts
Number of Screens	1023
Fields or Objects per Screen	1023
Function Keys	5 + System Key
OEM Faceplate Available	Yes
Built-in I/O points	22-42
Add on - SmartStix, SmartRail, SmartBlock, SmartMod	CsCAN & Ethernet
Digital Inputs/Outputs, Max	2048 / 2048
Analog Inputs/Outputs, Max	512 / 512
General Purpose Registers (words)*	50,000
General Purpose Internal Coils (bits)	32768 (16384 retentive)
Ethernet Support	Standard
Remote Access	HTTP or EnvisionRV
Remote File Access	FTP or EnvisionFX
WebMI Compatibility	Yes
Serial Ports	3
RS-232 Ports/RS-485 Ports	RS-232 &/or RS485
PLC/Drive Protocols	Yes
RTU/Modbus Master/Slave/Serial ASCII In/Out	Yes
USB Port - USB 2.0 port A	Datalog & Backup
USB Port	Mini B - Programming Only
CAN Network Support	CsCAN, CANopen, DeviceNet, J1939
Maximum CsCAN Distance**	1640 ft.
Programming Over Network	Yes
Peer-to-Peer Messaging	Yes
Height (inches/mm)	5.66" / 143.8 mm
Width (inches/mm)	7.34" / 186.08 mm
Depth (inches/mm)	1.84" / 46.62 mm
I/O Module Depth	COM opt adds 0.9"/22mm depth
Operating Temperature	-10 to 60°C
Humidity (non-condensing)	5 to 95%
Product Certifications/Approvals	UL Class 1 Div II, CE
Environmental Rating	UL Type 1, 3R, 4, 4x, 12, 12k, 13

Canvas 7D	
Controller	2MB
Logic Scan Rate	0.02mS/K
Removable Memory	microSD
Local Comment Storage	Yes
Floating Point Support	Yes
AutoTune PID Capable	Yes
Operator Interface	800 x 480
Display Technology	7" WVGA
Brightness	800 nits
Character Height	Selectable Fonts
Number of Screens	1023
Fields or Objects per Screen	1023
Function Keys	5 + System Key
OEM Faceplate Available	Yes
Built-in I/O points	22 - 42
Add on - SmartStix, SmartRail, SmartBlock, SmartMod	CsCAN & Ethernet
Digital Inputs/Outputs, Max	2048 / 2048
Analog Inputs/Outputs, Max	512 / 512
General Purpose Registers (words)*	50,000
General Purpose Internal Coils (bits)	32768 (16384 retentive)
Ethernet Support	Standard, 2 Ports
Remote Access	HTTP or EnvisionRV
Remote File Access	FTP or EnvisionFX
WebMI Compatibility	Yes
Serial Ports	3
RS-232 Ports/RS-485 Ports	RS-232 &/or RS485
PLC/Drive Protocols	Yes
RTU/Modbus Master/Slave/Serial ASCII In/Out	Yes
USB Port - USB 2.0 port A	Datalog & Backup
USB Port	Mini B - Programming Only
CAN Network Support	CsCAN, CANopen, DeviceNet, J1939
Maximum CsCAN Distance**	1640 ft.
Programming Over Network	Yes
Peer-to-Peer Messaging	Yes
Height (inches/mm)	5.66" / 143.8 mm
Width (inches/mm)	8.27" / 210.1 mm
Depth (inches/mm)	1.78" / 43.94 mm
I/O Module Depth	COM opt adds 0.9"/22mm depth
Operating Temperature	-10 to 60°C (-40°C option available)
Humidity (non-condensing)	5 to 95%
Product Certifications/Approvals	UL Class 1 Div II, CE
Environmental Rating	UL Type 1, 3R, 4, 4x, 12, 12k, 13

Canvas 10D	
Controller	2MB
Logic Scan Rate	0.02mS/K
Removable Memory	microSD
Local Comment Storage	Yes
Floating Point Support	Yes
AutoTune PID Capable	Yes
Operator Interface	1024 x 600
Display Technology	10.1" WSVGA
Brightness	300 nits
Character Height	Selectable Fonts
Number of Screens	1023
Fields or Objects per Screen	1023
Function Keys	5 + System Key
OEM Faceplate Available	Yes
Built-in I/O points	22 - 42
Add on - SmartStix, SmartRail, SmartBlock, SmartMod	CsCAN & Ethernet
Digital Inputs/Outputs, Max	2048 / 2048
Analog Inputs/Outputs, Max	512 / 512
General Purpose Registers (words)*	50,000
General Purpose Internal Coils (bits)	32768 (16384 retentive)
Ethernet Support	Standard, 2 Ports
Remote Access	HTTP or EnvisionRV
Remote File Access	FTP or EnvisionFX
WebMI Compatibility	Yes
Serial Ports	3
RS-232 Ports/RS-485 Ports	RS-232 &/or RS485
PLC/Drive Protocols	Yes
RTU/Modbus Master/Slave/Serial ASCII In/Out	Yes
USB Port - USB 2.0 port A	Datalog & Backup
USB Port	Type C - Programming Only
CAN Network Support	CsCAN, CANopen, DeviceNet, J1939
Maximum CsCAN Distance**	1640 ft.
Programming Over Network	Yes
Peer-to-Peer Messaging	Yes
Height (inches/mm)	9.08" / 230.6 mm
Width (inches/mm)	11.94" / 303.3 mm
Depth (inches/mm)	2.43" / 61.7 mm
I/O Module Depth	COM option adds 0.5" / 13 mm depth
Operating Temperature	-10 to 60°C
Humidity (non-condensing)	5 to 95%
Product Certifications/Approvals	UL Class 1 Div II (pending), CE
Environmental Rating	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