



# Color-Touch OCS

## 5.7" Color-Touch OCS300 Series

The OCS300 series adds 5.7" quarter VGA Color-Touchscreen models to the Operator Control Station\* (OCS) product line. There are four models from which you can select controllers with STN or TFT displays, with or without on-board Ethernet. I/O options include SmartStack™ I/O using the fiber optic FOX I/O System and the new SmartStix™ terminal-block style distributed I/O. The OCS300 series is programmed with the Windows® based Cscape™ programming software that combines ladder logic programming along with the graphical operator interface development system.

Color-Touch OCS integrates the features and functionality of color operator interfaces and programmable controllers using single programming software. Color-Touch OCS provides fully functional ladder logic capability, powerful graphics objects to quickly and simply build panel replacement screens, the ability to import and animate bitmaps to build sophisticated screens, and the ability to import fonts for multi-language applications. For process monitoring applications, Color-Touch OCS supports charting, trending, and alarm management.

The operator interface used on the OCS300 series is a quarter VGA (320x240) color LCD display (STN or TFT) that has a resistive 5.7" touchscreen with one dedicated and five configurable function buttons. This combination offers the advantages of both a touchscreen and a function key based unit. Its dual-processor design offers high-speed performance for both control and operator interface functionality, unlike competitive units that must sacrifice one or the other.

### I/O, Communication Options for Any Application

Choose SmartStack I/O, SmartStix I/O or use both with a Color-Touch OCS. You can accommodate up to 20 SmartStack I/O modules using the fiber optic FOX I/O system or use SmartStix I/O, a terminal-block style I/O for applications requiring large numbers of remote digital I/O. SmartStix I/O connects to any Color-Touch OCS CsCAN network port. In addition to the CsCAN port that also allows you to network OCS units, there are many other communication connectors. An Ethernet TCP/IP port supports several industrial protocols including Modbus/TCP, CsCAN over Ethernet and Ethernet Global Data. Three serial ports support Modbus/RTU slave and master, ASCII Read/Write and CsCAN serial protocol using either RS-232 or RS-485.

### Features & Benefits:

- Dual processors, one for logic and one for screen update, result in a high performance package (0.7ms/K logic scan time) — improved performance over conventional systems.
- Five configurable function keys and touchscreen capability.
- 320x240 pixel graphics with STN (passive) or TFT (active) 5.7" LCD display.
- Up to 20 SmartStack modules and I/O can be remotely mounted from the display
- Up to 253 SmartStix I/O modules can be connected to the CsCAN port and distributed 500m (1500 ft.).
- SmartStack I/O is supported through a Toslink Plastic Fiber Optic Connection. Up to 5 fiber-linked I/O bases are supported. Each base supports up to 4 SmartStack modules.
- SmartStack I/O may be remotely mounted from the Display/Controller, up to 10m per segment or 30m total.
- Fully compatible with Cscape programming software. Cscape is a 32-bit Windows application which configures all system elements of control, I/O, graphics, and networking.

\* The Operator Control Station combines a logic controller, operator interface, network, and I/O in a highly integrated package. The OCS reduces installation cost, development time, and hardware with its all-in-one design.



Powerful  
Controller

High Performance  
Graphical Display

Single  
Programming  
Software

# Specifications

## Display

Type	320x240 LCD with backlight. TFT and STN models available
Screen Dimensions	4.6"W x 3.5"H (117x 88mm)

## Controller

Logic Scan Time	0.7mS/K of Logic
Memory	32K Register 256K Ladder 2M Display
I/O Model Available	SmartStack I/O Modules and SmartStix I/O Modules
Maximum I/O	2048 Digital Inputs 2048 Digital Outputs 512 Analog Inputs 512 Analog Outputs
Instructions	Contacts, Coils, Timers, Counters, Math, PID with Auto-tuning option, Serial Read/Write, Floating Point Math, Motion Commands, Data Conversions, Data Moves, Scaling, Modem Commands, Subroutines, and more

## Graphics Supported

User Tools	- Editable Graphics - Animated Bitmaps - Selectors - Pushbuttons	- Pilot Lights - Bar Graphs - Editable Fonts - Alarms	- Trending - Symbol Library - Drawing Tools - Sliders	- Data Display
Number of Pages	1023 screens (50 objects per screen)			

## User Keys and Touchscreen

Function Keys	5 (plus System Key)
Touchscreen	Resistive Analog 1024W x 1024H
Life	Greater than 1 million operations

## Communications

Serial Ports	(2) RS-232/RS-485 (RJ-45) (1) RS-232/RS-422 (DB-25)
Network Ports	(1) CAN (DeviceNet slave or CsCAN peer)
Protocols Supported	Serial ports - CsCAN, Modbus Master, Modbus Slave, and ASCII Read and Write, Modem CAN port - CsCAN (up to 253 drops) or DeviceNet Slave (Explicit Messaging, Polled Connection, Polled Snooping)
Communication Option	On-board Ethernet 10BaseT (optional) supports TCP/IP with EGD and SRTP
FOX Expansion I/O System	Toslink Plastic Fiber Pair, 10m per segment, 30m max

## DC Power Source

Primary Power	24VDC (+/-10%), 450mA at 24vdc, Inrush Current 2A for 3mS.
CAN Power Range	12-25VDC @ 75mA maximum
I/O Power	10-30vdc, 1.0A max at 24vdc

## Dimensions

OCS300 Series	7.2"W x 5.5"H x 3"D (183x139x76mm) — Outside Dimensions 6.9"W x 5.16"H (174x131mm) — Cut Out
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## Environmental Conditions

Operating Temperature	0 to +50 Degrees C
Humidity	5% to 95% non-condensing
NEMA Rating	12, 4, 4X
Product Certifications	CE, UL & C-UL; Class I, Div. II

## Part Number

### Description

HE500OCS300*	Color-Touch OCS with STN Display
HE500OCS301*	Color-Touch OCS with STN Display and onboard Ethernet 10BaseT
HE500OCS350*	Color-Touch OCS with TFT Display
HE500OCS351*	Color-Touch OCS with TFT Display and onboard Ethernet 10BaseT

\*Two 2.0m fiber optic cables included with display. For systems with more than one FOX base, order cables separately.

Lots of I/O  
Options

Integrated  
Fieldbus  
Network

Optional  
Ethernet  
Communication



Fox Base with SmartStacks

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PS/30-3-03

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