

# Color-Touch OCS300

## New Color-Touch OCS300 Series

The OCS300 series adds Color-Touchscreen capability to the OCS product line and introduces a new I/O system that expands the number of I/O by allowing SmartStack I/O to be mounted remotely from the display.

The OCS (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 simplistic design. The OCS300 adds Color-Touchscreen capability to the OCS product line that already includes a family of text and graphic displays. 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. The operator interface featured on the OCS300 series is a quarter VGA (320x240) color LCD display (STN or TFT), with 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. The OCS300 series is programmed with the Windows® based Cscape programming software. Cscape combines ladder logic programming along with the graphical operator interface development system.



OCS300

Powerful  
Controller

High Performance  
Graphical Display

Single  
Programming  
Software

## New I/O System Offers Expansion and Remote Mounting

The OCS300 series will accommodate up to 20 SmartStack modules through an innovative local I/O expansion system, and there are over 40 SmartStack I/O modules to select from. The SmartStack modules can be safely mounted a short distance from the display using expansion bases and inexpensive dual fiber optic cables. Using the same technology employed by residential audio systems like CD and DVD players, the OCS300's plastic fiber optic cables not only keep the cost of the unit down, but also make it easier for the OEM or end user to obtain additional cables, as they can be found in most consumer hardware and electronics stores. All SmartStack modules can be safely mounted 10 meters from the OCS300 display using this expansion system and dual plastic fiber optic cables. With this new I/O system, the OCS300 can support over 1,000 I/O points.

## 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.
- 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.
- 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.

# 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<br>256K Ladder<br>2M Display   |
| I/O Models Available | 40+ SmartStack I/O Modules  |
| Maximum I/O          | 2048 Digital Inputs<br>2048 Digital Outputs<br>512 Analog Inputs<br>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                     | - Pilot Lights  | - Trending       | - Data Display |
| Formats         | - Animated Bitmaps                      | - Bar Graphs    | - Symbol Library |                |
|                 | - Editable Fonts                        | - Drawing Tools | - Pushbuttons    | - Selectors    |
|                 |   | - Alarms        | - Sliders        |                |
| Number of Pages | 300 screens (50 data fields 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)<br>(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<br>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 SRTIP  |
| Expansion I/O        | 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

|          |                    |   |
|----------|--------------------|---|
| OCS      | Outside Dimensions | 7.2"W x 5.5"H x 3"D (183x139x76mm)  |
|          | Cut Out            | 6.9"W x 5.16"H (174x131mm)  |
| I/O Base |                    | 6.625"W x 4.25"H x 1.5"D (168.3 x 1089 x 381mm) Add 0.8" (20.3mm) per SmartStack module |

## Environmental Conditions

|                       |                                 |
|-----------------------|---------------------------------|
| Operating Temperature | 0 to +50 Degrees C              |
| Humidity              | 5% to 95% non-condensing        |
| NEMA Rating           | 12, 4, 4X                       |
| Agency Approvals      | 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                     |
| HE800FOX104  | Expansion I/O Base. Supports 4 SmartStack I/O Modules                             |
| HE800FOX404  | Expansion Base/Hub. Supports 4 SmartStack I/O Modules plus 4 additional I/O Bases |

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

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Lots of I/O  
Options

Integrated  
Fieldbus  
Network

Optional  
Ethernet  
Communication



Fox Base with SmartStacks



20 Years of Innovation