



Graphical OCS250 Display

Data Sheet

GE Fanuc Automation

The OCS250 (Operator Control Station) combines a powerful logic controller, operator interface, network and I/O in a tightly integrated package. The OCS250 reduces installation cost, development time and hardware with its simplistic design.

The OCS250 is programmed with the Windows® based Cscape™ software package. Cscape combines ladder logic programming along with the graphical operator interface development system. This combination reduces development time and increases productivity.

The OCS250 will accommodate up to 4 SmartStack™ modules. There are over 35 different types of SmartStack I/O modules to select from. The display is an adjustable-backlit LCD that supports Windows® True-Type Fonts and up to 240 x 128 pixel graphics.



OCS250 – The complete controller...

OCS250

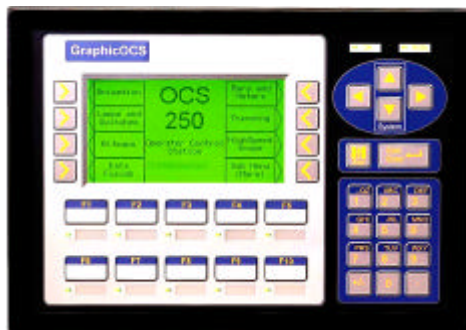
Product Features/Benefits:

- Integrated Controller, Operator Interface, Communications and I/O – **Reduced hardware.**
- High performance dual processors, one for the logic and one for the OI screen updates. The result is a high performance package (0.7ms/K Boolean logic scan time) – **Improved performance over conventional systems.**
- 8 screen softkeys, 10 re-legendable function keys with user-controlled LEDs, navigational keys and numeric keypad – **Custom flexibility.**
- 240 x 128 pixel graphics with backlit LCD display – **Easy Viewing.**
- 64K of ladder, 32K registers, and 1 meg screen memory – **Lots of control capacity.**
- Built-in communications ports include (1) CAN port, (CsCAN or DeviceNet Slave); (1) RS-232 port, for programming, Modbus Master/Slave or serial read or write commands; and (1) RS-232/485 port for Modbus Master/Slave or serial read or write commands. Applications include:
 - Barcode Readers
 - SCADA
 - Intelligent scales
 - Modems
 - Pagers
 - Peer to Peer Network
- Wide variety of I/O and intelligent modules.
 - Over 35 different types of I/O modules to choose from: Discrete, Analog, Communications and Motion

OCS250

Application Benefits:

- **Process Control**
 - Key features such as trending, animation, bar graphs and meters make the OCS250 ideal for process applications
 - Floating Point Math, PID, *PID with AutoTuning* and scaling are just a few of the instructions that enable the programmer to easily control complex applications such as extruders, blending and batching.
 - Analog, Thermocouple, RTD and other SmartStack modules reduce the requirements for costly transducers.
- **Discrete Manufacturing**
 - The dual processor enables the OCS250 function keys to react as quickly as traditional pushbuttons and switches, therefore reducing hardware and wiring cost.
 - A wide range of motion applications can be solved with the high performance of both the High Speed Counter (5 Mhz inputs) and the Stepper module. Applications such as cut to length, pick and place, pipe bending, high speed labeling machines, precision grinding, and much more can be easily controlled using the OCS solution.
 - The built-in CAN network enables users to select either DeviceNet Slave or CsCAN. CsCAN network provides a single point of connection for programming, monitoring and troubleshooting. In addition, CsCAN network supports peer-to-peer, datagrams and global data for up to 253 devices.



Specifications & Ordering Information

SmartStack I/O Modules

Discrete I/O

- 8 in (12/24VDC +/- logic) PN: IC300DIM210
- 8 relay outputs (4.0 amps/point iso.) PN: IC300DQM202
- 8 in (12/24VDC +/- logic) 8 out (5/12/24 VDC 0.5 amps neg. logic) PN: IC300DIQ611
- 8 in (12/24VDC +/- logic) 6 relay out (3.0 amp/point, iso.) PN: IC300DIQ612
- 8 in (12/24VDC +/- logic) 8 out (5/12/ 24VDC 0.5 amps pos. logic) PN: IC300DIQ616
- 8 in (120VAC), 6 relay out (3.0 amp/point) PN: IC300DIQ622
- 8 in (120VAC), 8 out (80–250VAC, 0.3 amp/point) PN: IC300DIQ624
- 16 in (12/24VDC +/- logic) 12 out (5/12/24VDC 0.5 amps neg. logic) PN: IC300DIQ711
- 14 in (12/24VDC +/- logic) / 10 relay out (3.0 amp/point, iso. 2 per com.) PN: IC300DIQ712
- 16 in (12/24VDC +/- logic) / 12 out (5/12/24VDC 0.5 amps pos. logic) PN: IC300DIQ716
- 14 AC in (120VAC), 10 relay out (3.0 amp per point, iso. 2 per common) PN: IC300DIQ722
- 32 in (24VDC pos. logic) / 32 out (5/12/24VDC 0.5 amps neg. logic) PN: IC300DIQ935

Analog I/O

- Voltage in (0-5, +/-5, 0-10, +/-10VDC), 12bit. PN: (2ch) IC300ADC010, (4ch) IC300ADC110
- Current in (0-20ma, 4-20ma), 12bit. PN : (2ch) IC300ADC020, (4ch) IC300ADC120
- Current/Voltage/Thermistor in, channel selectable. 12bit. PN: (12ch) IC300ADC920
- Voltage out +/-10VDC, 14bit. PN: (2ch) IC300DAC001, (4ch) IC300DAC101
- Current out (4-20ma) 14bit. PN: (2ch) IC300DAC002, (4ch) IC300DAC102
- 2 ch. In/ 2 ch. out, (+/-10VDC) PN: IC300MIX111
- 2 ch. In/ 2 ch. out, (4-20ma) PN: IC300MIX122
- RTD (Pt-100, Pt-200, Pt-500, Pt-1000) 18 bit. PN: (2ch) IC300RTD000, (4ch) IC300RTD100
- Thermocouple (J, K, T, E or +/-25mV, +/-50mV and +/-100mV), 18bit. PN: (2ch) IC300THM000, (4ch) IC300THM100

Digital and Analog I/O

- 8 DC in/8 DC out, 4 analog in voltage, 2 analog out voltage, 12bit. PN: IC300MIX901
- 8 DC in/8 DC out, 4 analog in current, 2 analog out current, 12bit. PN: IC300MIX902

Motion I/O

- High Speed Counter (2@10Mhz), PWM/PT (2 @ 5Mhz) and I/O. PN: IC300HSC600 (Neg. logic outputs), IC300HSC601 (Pos. logic outputs)
- Stepper Indexer. Single Axis PN: IC300STP100

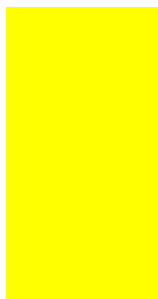
Communications

- Ethernet, 10baseT, 10Mbps PN: IC300ETN100
- ASCII BASIC, (3) serial ports, 64K memory PN: IC300ASC100

Display	
Type	240 x 128 pixels graphic LCD with backlight
Screen dimensions	75mm high x 130mm wide
Characters per page	16 x 40 characters per page
Faceplate	Faceplate made of Autotex® polyester by Autotype
Controller	
Logic Scan Time	0.7msec/K of boolean logic
Memory	- 64K for ladder logic/documentation - 1 meg for screen memory - 32K for registers
Maximum I/O	Discrete - Physical - 288 I/O, Internal - 2048 I/O Analog - Physical - 48 I/O, Internal - 512 I/O
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
I/O Support	Support up to four SmartStack modules
Real Time Clock Support	Battery backed
Graphics Supported	
User tools	- Editable Graphics - Alarms and Status pages - Trending - Data Display Formats - Animated Bit Maps - Bar Graphs - Symbol Library - Editable Fonts - Drawing Tools
Number of Pages	300 and supports 50 data fields per page
Number of Text Tables	200 (20 items per table)
User Keys and LED's	
User and System Keys	10 user (re-legendable) programmable keys, 8 softkeys, ESC, Enter, (4) directional keys and numeric keypad
LED's	10 user programmable LED's, one each per programmable key
Communications	
Built-in Ports	(1) Primary Port RS-232 (DB-9), (1) Secondary Port RS-232 (DB-9) or RS-485 (terminal connection) and (1) CAN port for networking
Protocols supported	Serial ports - CsCAN, Modbus Master, Modbus Slave, and Read and Write CAN port - CsCAN (up to 253 drops) or DeviceNet Slave (Explicit Messaging, Polled Connection, Polled Snooping)
Communications Speeds	Serial ports – 9600 baud standard (300 to 115,200 optional) CAN port – 125Kbaud to 1 Meg (supports Fiber Optics)
Communication Option	Ethernet 10baseT, 10Mbps SmartStack Module (IC300ETN100) supports Ethernet Global Data
DC Power Source	
Primary Power	Range: 10 to 30VDC, Input Current: 350mA @ 24VDC, Inrush Current: 800 mA @ 24VDC for 50mSec.
CAN Power Range	12-25VDC @ 75mA maximum
Dimensions	
Outside Dimensions	7.88 in. (200mm) High x 11.13 in. (282mm) wide x 1.98 in. (50.39mm) deep (without I/O)
Cut Out	6.13 in. (155.58mm) high x 10.13 in. (257.18mm) wide
SmartStack I/O Module	3.09 in. (78.6mm) high x 5.62 in. (142.7mm) wide x 0.80 in. (20.3mm) deep
Environmental	
Conditions	
Operating Temperature	0 to +50 Degrees C
Humidity	5% to 95% non-condensing
NEMA Rating	NEMA 4/12
Agency Approvals	UL, C-UL and CE (all pending)

Part Number	Description
IC300OCS250	Operator Control Station with graphical display that supports up to 4 SmartStack I/O modules
IC300OSW232	Cscape programming software, RS-232 cable and manuals. (Release 4.0 or greater)

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