

# 1/16 DIN Temperature, Process and Strain PID Controllers

**Ω MONOGRAM®**

## iSeries

CNi16 Series  
Starts at  
**\$235**



- ✓ High Quality
- ✓ 5 Year Warranty
- ✓ High Accuracy: 0.5°C (±0.9°F), 0.03% Reading
- ✓ First 1/16 DIN Controller with Totally Programmable Color Displays (Standard)
- ✓ User-Friendly, Simple to Configure
- ✓ Free Software
- ✓ Full Autotune PID Control
- ✓ Universal Inputs: Thermocouple, RTD, Process Voltage/Current, Strain
- ✓ Embedded Ethernet Connectivity
- ✓ First 1/16 DIN Controller Offering Both RS232 and RS485 Serial Communications in 1 Instrument (Optional)
- ✓ First 1/16 DIN Controller with Built-In Excitation, 24 Vdc (Standard)
- ✓ First 1/16 DIN Instrument with Analog Output Selectable as a Control Output or as a Calibrated Retransmission of Process Variable
- ✓ NEMA 4 (IP65) Front Bezel
- ✓ 2 Control or Alarm Outputs (Optional): DC Pulse, Solid State Relays, Mechanical Relays, Analog Voltage and Current Temperature Stability



CNi1633, \$235, shown larger than actual size.



CNi16D33, \$260, shown larger than actual size.

- ✓ ±0.04°C/°C RTD and ±0.05°C/°C Thermocouple @ 25°C (77°F)
- ✓ Front Removable and Plug Connectors

The OMEGA® CNI16 is the popular 1/16 DIN size (48 mm<sup>2</sup>) controller. It is available with a single (model CNI16) or dual display (model CNI16D) that displays a setpoint along with the process value. The CNI16 display can be programmed to change color between **GREEN**, **AMBER**, and **RED** at any setpoint or alarm point. The CNI16 is the first 1/16 DIN

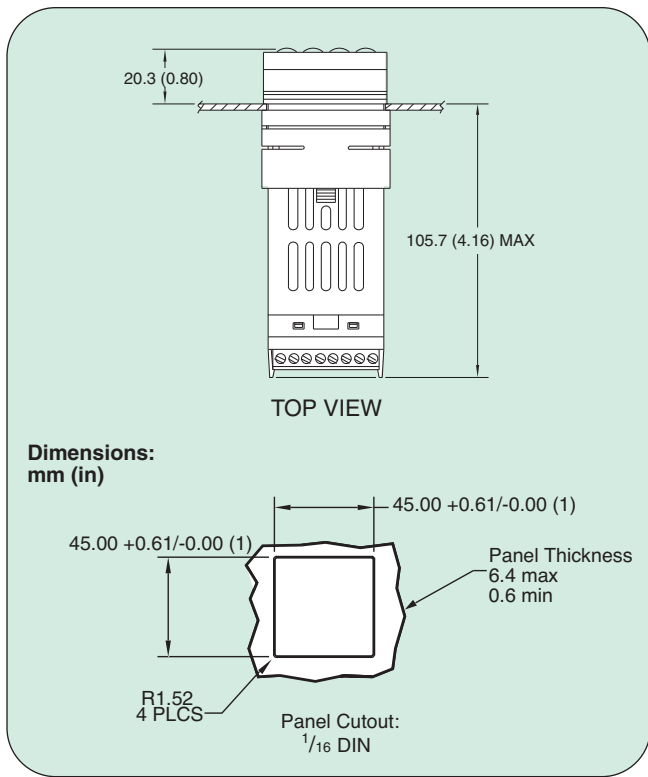
controller with the option of both RS232 and RS485 in 1 instrument with both MODBUS® serial protocol and the straightforward OMEGA® ASCII protocol. And of course the CNI16 is the first 1/16 DIN controller that can connect directly to an Ethernet network and features an embedded Web server. OMEGA® provides free configuration and data acquisition software for the iSeries on CD-ROM and for download off of the Web.

The CNI16 enclosure has a NEMA 4 (IP65) rated front bezel. The electronics are removable from the front panel.

### Access Vital information Anytime, Anywhere, On the World Wide Web!



1/16 DIN controller with embedded Web server, dual control outputs, dual display.



Dimensions:  
mm (in)

### Options

Ordering Suffix	Add'l Price	Description
-AL	N/C	Limit alarm version (simplified menu, alarms only, no PID control) <sup>*2*3</sup>
-SM	N/C	Simplified menu (on/off control or alarms, no PID) <sup>*5</sup>
<b>Network Options</b>		
-EI	\$55	Ethernet with embedded Web server
-C24	60	Isolated RS232 and RS485/422, 300 to 19.2 Kb <sup>*2</sup>
-C4EI	110	Ethernet with embedded Web server + isolated RS485/422 hub for up to 31 devices <sup>*1*2</sup>
<b>Power Supply</b>		
-DC	\$25	12 to 36 Vac/dc, 24 Vac <sup>*2*4</sup>
<b>Factory Setup</b>		
-FS	\$50	Factory setup and configuration
-FS(RTD-1N)	75	Factory scaled for MIL-T-7990B nickel RTD input, 0 to 200°C (32 to 392°F)
-FS(RTD-2N)	75	Factory scaled for MIL-T-7990B nickel RTD input, -40 to 300°C (-40 to 572°F)
<b>Software (Requires Network Option)</b>		
OPC-SERVER LICENSE	\$295	OPC server/driver software license

<sup>\*1</sup> Ethernet options are available for the i16D and iS16D controllers only.

<sup>\*2</sup> "-DC", "-C24", and "-C4EI" not available with excitation.

<sup>\*3</sup> Analog output is not available with "-AL" units.

<sup>\*4</sup> 20 to 36 Vdc for CNI16D.

<sup>\*5</sup> "-SM" option not available on CNI16 strain models.

**MOST POPULAR MODELS HIGHLIGHTED!**

### To Order (Specify Model Number)

Model No.	Price	Output 1	Output 2
<b>Single Display with 2 Control Outputs</b>			
CNI1633	\$235	Relay	Relay
CNI1644	235	DC pulse	DC pulse
CNI1643	235	DC pulse	Relay
CNI1642	235	DC pulse	0.5 A SSR
CNI1622	235	0.5 A SSR	0.5 A SSR
CNI1623	235	0.5 A SSR	Relay
CNI1624	235	0.5 A SSR	DC pulse
CNI1653	235	Analog	Relay
CNI1654	235	Analog	DC pulse
CNI1652	235	Analog	0.5 A SSR
<b>Dual Display with 2 Control Outputs</b>			
CNI16D33	\$260	Relay	Relay
CNI16D44	260	DC pulse	DC pulse
CNI16D43	260	DC pulse	Relay
CNI16D42	260	DC pulse	0.5 A SSR
CNI16D22	260	0.5 A SSR	0.5 A SSR
CNI16D23	260	0.5 A SSR	Relay
CNI16D24	260	0.5 A SSR	DC pulse
CNI16D53	260	Analog	Relay
CNI16D54	260	Analog	DC pulse
CNI16D52	260	Analog	0.5 A SSR
<b>Single Display Strain/Process Input with Control Outputs</b>			
CNIS1633	\$275	Relay	Relay
CNIS1644	275	DC pulse	DC pulse
CNIS1643	275	DC pulse	Relay
CNIS1642	275	DC pulse	0.5 A SSR
CNIS1622	275	0.5 A SSR	0.5 A SSR
CNIS1623	275	0.5 A SSR	Relay
CNIS1624	275	0.5 A SSR	DC pulse
CNIS1653	275	Analog	Relay
CNIS1654	275	Analog	DC pulse
CNIS1652	275	Analog	0.5 A SSR
<b>Dual Display Strain/Process Input with 2 Control Outputs</b>			
CNIS16D33	\$295	Relay	Relay
CNIS16D44	295	DC pulse	DC pulse
CNIS16D43	295	DC pulse	Relay
CNIS16D42	295	DC pulse	0.5 A SSR
CNIS16D22	295	0.5 A SSR	0.5 A SSR
CNIS16D23	295	0.5 A SSR	Relay
CNIS16D24	295	0.5 A SSR	DC pulse
CNIS16D53	295	Analog	Relay
CNIS16D54	295	Analog	DC pulse
CNIS16D52	295	Analog	0.5 A SSR

Comes with complete operator's manual.

**Ordering Examples:** CNI1633, output 1 relay, output 2 relay single display controller with 2 control outputs, \$235.

CNIS1643, output 1 DC pulse, output 2 relay single display strain/process input controller with 2 control outputs, \$275.



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters