iSeries
ΩE MONOGRAM®

⅟₃₂ DIN Temperature, Process and Strain Meters and PID Controllers

⅟₃₂

DPi32 Meters Starts at
$**150**

CNi32 Controllers Starts at
$**195**

MADE IN USA · 5 YEAR WARRANTY · CE · c UL us

- ✔ **High Quality**
- ✔ **5-Year Warranty**
- ✔ **High Accuracy ±0.5°C (0.9°F), 0.03% Reading**
- ✔ **First ⅟₃₂ DIN Instrument with Totally Programmable Color Displays (Standard)**
- ✔ **User-friendly, Simple to Configure**
- ✔ **Free Software, Active X Controls**
- ✔ **Full Autotune PID Control**

- ✔ **Universal Inputs: Thermocouple, RTD, Process Voltage/Current, Strain**
- ✔ **First ⅟₃₂ DIN Instrument Offering Both RS232 and RS485 Serial Communications in One Instrument (Optional)**
- ✔ **First ⅟₃₂ DIN Instrument with Built-in Excitation, 24 Vdc, Standard**
- ✔ **Temperature Stability ±0.04°C/°C RTD and ±0.05°C/°C TC @ 25°C (77°F)**

- ✔ **NEMA-4 (IP65) Front Bezel**
- ✔ **First ⅟₃₂ DIN Instrument with Analog Output Selectable as a Control Output or as Retransmission of Process Variable**
- ✔ **2 Control or Alarm Outputs (Optional) dc Pulse, Solid State Relays (SSR's), Mechanical Relays, Analog Voltage & Current**
- ✔ **Front Removable and Plug Connectors**

The OMEGA® DPi32/CNi32 is the iSeries meter (DPi32) and controller (CNi32) in the extremely compact and increasingly popular ⅟₃₂ DIN size. The DPi32/CNi32 is the most sophisticated and accurate instrument available in the small ⅟₃₂ DIN package, yet is still easy to configure.

The DPi32/CNi32 handles more thermocouple, RTD, process voltage and current inputs than any other ⅟₃₂ DIN controller.

The DPi32/CNi32 is the first ⅟₃₂ DIN controller with built-in excitation for transmitters or other devices, 24 Vdc @ 25 mA.

The DPiS32/CNiS32 has built-in excitation for bridge transducers, 5 Vdc @ 40 mA or 10 Vdc @ 60 mA. When communications options are installed, external excitation may be used and ratiometric operation maintained by connecting the external excitation to the sense leads. Both 4 or 6-wire bridge configurations are supported for internal or external excitation. Non-ratiometric operation is supported for voltage and current transducers and is also valuable in measuring offset and millivolt output

of bridge devices during manufacturing and calibration.

This model also features 10 Point Linearization which allows the user to linearize the signal input from extremely nonlinear transducers of all kinds.

The DPi32/CNi32 and DPiS32/CNiS32 introduce a number of unique features not yet found on any other ⅟₃₂ DIN instrument. The DPi32/CNi32 and DPiS32/CNiS32 are the first ⅟₃₂ DIN controllers with a totally programmable display that can change color at any set point or alarm point. The unique

9-segment LED characters greatly improves alphanumeric representations.

The DPi32/CNi32 and DPiS32/CNiS32 are the first ⅟₃₂ DIN controllers offering 2 SPDT (Single Pole Double Throw) Form C relays, instead of the single throw relays on typical ⅟₃₂ DIN controllers.

The DPi32/CNi32 and DPiS32/CNiS32 are the first to offer both RS232 and RS422/485 serial communications in one instrument (-C24 option). Both ASCII protocol and modbus protocol are selectable from the menu.

The **iSeries** displays feature unique 9-segment LED characters, which greatly improves alphanumeric representations. The 7-segment LED characters found on most instruments are adequate for presenting numbers, but not letters. Words are easier to read with the unique 9-segment LED characters on the **iSeries**, which makes operating and programming simpler and easier.
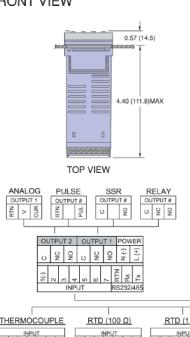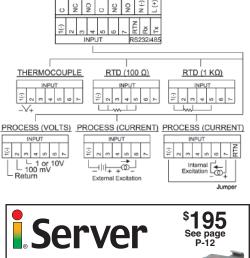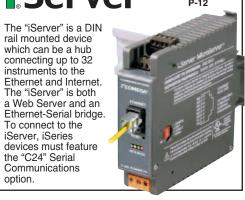

9-segment LED

7-segment display

9-segment display

DPi32-B-COVER supplied with each unit, standard.

Dimensions: inches (mm)

1.89 (48.0) — 1.00 (25.4)

FRONT VIEW

0.886 +.024/-.000 (22.50 +0.61/-0.00)
1.772 +.024/-.000 (45.00 +0.61/-0.00)

PANEL THICKNESS .25 (6.4) MAX .03 (0.6) MIN

PANEL CUTOUT ⅟32 DIN

1.89 (48.0) — 1.00 (25.4)

REAR VIEW

Please visit omega.com/panelpunches for standard DIN size panel punches.

0.57 (14.5)

4.40 (111.8) MAX

TOP VIEW

ANALOG | PULSE | SSR | RELAY
OUTPUT 1 [RTN, V, CUR] | OUTPUT # [RTN, PUL] | OUTPUT # [C, NO] | OUTPUT # [C, NC, NO]

OUTPUT 2 [C, NC, NO] | OUTPUT 1 [C, NC, NO] | POWER [N (−), L (+)]
1 (−) 2 3 4 5 6 7 RTN Rx Tx
INPUT — RS232/485

THERMOCOUPLE | RTD (100 Ω) | RTD (1 KΩ)
INPUT 1(−) 2 3 4 5 6 7 −V+ | INPUT 1(−) 2 3 4 5 6 7 | INPUT 1(−) 2 3 4 5 6 7

PROCESS (VOLTS) | PROCESS (CURRENT) | PROCESS (CURRENT)
INPUT 1(−) 2 3 4 5 6 7 — 1 or 10V, 100 mV, Return | INPUT 1(−) 2 3 4 5 6 7 External Excitation | INPUT 1(−) 2 3 4 5 6 7 RTN, Internal Excitation, Jumper

AVAILABLE FOR FAST DELIVERY!

To Order *(*Specify Model Number)*

MODEL NO.			DESCRIPTION	PRICE
DPi32			Temperature/Process (Monitor only) ⅟32 DIN	$150
DPiS32			Strain/Process (Monitor only) ⅟32 DIN	195
CONTROL OUTPUTS #1 & 2 Direct (Cool) or Reverse (Heat) Acting				
CNi32	(*)	(*)	Temperature/Process with 2 Control Outputs	$195
CNiS32	(*)	(*)	Strain/Process with 2 Control Outputs	240
	2	2	Two solid state relays (SSR's): 0.5 A @ 120/240 Vac continuous	N/C
	2	3	SSR and relay: Form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac	
	2	4	SSR and pulsed 10 Vdc @ 20 mA (for use with external SSR)	
	3	3	2 Relays: Form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac	
	4	2	Pulsed 10 Vdc @ 20 mA (for use with external SSR) and SSR	
	4	3	Pulsed 10 Vdc @ 20 mA (for use with external SSR) and relay: Form "C" SPDT 3 A @ 120 Vac, 3 A @ 240 Vac	
	4	4	Two pulsed 10 Vdc @ 20 mA (for use with external SSR)	
	5	2	Analog Output selectable as either control or retransmission of process value; 0 to 10 Vdc or 0-20 mA @ 500 ohm max and SSR	
	5	3	Analog Output 0 to 10 Vdc or 0-20 mA @ 500 ohm max and Relay	
	5	4	Analog Output 0 to 10 Vdc or 0-20 mA @ 500 ohm max and Pulse 10 Vdc	
		-AL	Limit Alarm Version (Alarm Menu, No PID Control)[2]	
		-SM	Simplified Menu Version (ON/OFF Control, No PID)[3]	

NETWORK OPTIONS		PRICE
-C24	Isolated RS232 and R485/422. 300 to 19.2k Baud [1]	$60
POWER SUPPLY (Select One)		
*	Standard power input: 90 to 240 Vac/dc, 50-400 Hz (no entry required)	N/C
-DC	12 to 36 Vdc, 24 Vac [1]	$25
FACTORY SETUP (Requires Network Option)		
-FS	Factory Setup and Configuration	N/C
-FS(RTD-1N)	Factory Scaled for MIL-T-7990B Nickel RTD input (0 to 200°C)	N/C
-FS(RTD-2N)	Factory Scaled for MIL-T-7990B Nickel RTD input (-40 to 300°C)	N/C

MODEL NO.	DESCRIPTION	PRICE
EIT-D	iServer MicroServer, serves 32 devices, page P-12	$195
EIT-W	iServer MicroServer for Serial to Ethernet applications visit omega.com/eit-w for Complete Details	195

SOFTWARE (Requires Network Option)		PRICE
OPC-SERVER LICENSE	OPC Server/Driver Software License	$295

[1] -DC, -C24 not available with Excitation.
[2] Analog Output (Option 5) is not available with -AL units.
[3] Strain DP/CNiS32 is not available with -SM units.

Ordering Examples: CNi3222-C24 ⅟32 DIN PID Controller with two solid state relays for PID control and serial communications, both RS232 and RS485 $195 + 60 = **$255.**
CNiS3222-C24-FS(RTD-1N) factory scaled for MIL Standard MIL-T-7990B Nickel RTD input **$300.**

iServer

$195
See page P-12

The "iServer" is a DIN rail mounted device which can be a hub connecting up to 32 instruments to the Ethernet and Internet. The "iServer" is both a Web Server and an Ethernet-Serial bridge. To connect to the iSeries devices, iSeries devices must feature the "C24" Serial Communications option.

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• Temperature

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• 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

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