# % DIN TemperatureControllers







- Dual Display
- Autotune
- RS485 Communications
- Free Software
- Alarm Functions
- Thermocouple/ RTD Inputs
- Output Status

The CN740 Series temperature controllers offer accurate temperature measurement and control in a <sup>1</sup>/<sub>6</sub> DIN package. Designed for direct or reverse acting (cooling or heating) control, the CN740 Series can be programmed for simple ON/OFF or more complex PID control functions. PID control is supported with manual or autotuning. Select relay, DC pulse or current output for control methods. The CN740 Series accepts a variety of thermocouple and RTD inputs. Process value and set-point value are displayed simultaneously on the large dual LED. Auto-tuning, engineering units (°F or °C), and alarm status is also indicated on the faceplate. Two alarm outputs are included on the unit with 12 preprogrammed alarm functions.

#### **Specifications**

**Inputs:** Thermocouple, RTD, see chart **Display:** Two 4-digit, 7 segment 6.35 mm H (0.25") LEDs

- PV: Red
- SV: Green

Accuracy: ±0.25% span, ±1 least significant digit

Supply Voltage: 100 to 240 Vac, 50/60 Hz

**Power Consumption:** 5 VA max **Operating Temperature:** 0 to 50°C (32 to 122°F)

Memory Backup: Nonvolatile memory

Panel Punches Available Visit omega.com/ panelpunches

Control Output Ratings: Relay: SPST, 5A @ 250 Vac resistive Voltage Pulse: 14 Vdc, 10 to -20% (max 40 mA) Current: 4 to 20 mA Communication: RS485 MODBUS® communication protocol Panel Cut-Out: 45 mm<sup>2</sup> (1.77 in<sup>2</sup>) Maximum Panel Thickness: 9.50 mm (0.375") Panel Depth: 80 mm (3.15") Weight: 114 g (4 oz) Front Panel Rating: IP66



CN743, \$88, shown smaller than actual size.

Input Types	Range
Pt100Ω RTD	0 to 100°C (32 to 212°F) -20 to 500°C (-4 to 932°F) -200 to 600°C (-328 to 1112°F)
Thermocouple Type ${\sf B}$	100 to 1800°C (212 to 3272°F)
Thermocouple Type $\mathbb S$	0 to 1700°C (32 to 3092°F)
Thermocouple Type ${f R}$	0 to 1700°C (32 to 3092°F)
Thermocouple Type N	-200 to 1300°C (-328 to 2372°F)
Thermocouple Type 둗	0 to 600°C (32 to 1112°F)
Thermocouple Type T	-20 to 400°C (-4 to 752°F) -200 to 400°C (-328 to 752°F)
Thermocouple Type ${f J}$	-20 to 400°C (-4 to 752°F) -100 to 850°C (-148 to 1562°F)
Thermocouple Type 📉	-200 to 1300°C (-328 to 2372°F) -200 to 500°C (-328 to 932°F)
Thermocouple Type L	-200 to 500°C (-328 to 932°F)
Thermocouple Type U	-200 to 800°C (-328 to 1472°F)

### IN STOCK FOR FAST DELIVERY!

To Order (Specify Model Number)		
Model No.	Price	Description
CN743	\$88	Relay output, with RS485 communications*
CN742	88	DC pulse output, with RS485 communications*
CN745	88	4 to 20 mA output, with RS485 communications*

\* Free **CN7-A** software download available at **omega.com/cn740** Comes complete with operator's manual.

Ordering Example: CN743, single output controller, mechanical relay, RS485 communications, \$88.

#### Accessory (Field Installable)

P-x

Model No.	Price	Description	
CNQUENCHARC	\$8	Noise suppression kit, 110 to 230 Vac	
CN7-485-USB-1	82	RS485 to USB mini-node converter	
DPP-4	475	<sup>1</sup> / <sub>16</sub> DIN panel punch	
GE-2117	23	Reference Book: Controller Tuning/PID	

# omega.co.uk®

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

# www.omega.co.uk



UNITED STATES www.omega.com 1-800-TC-OMEGA Stamford, CT.

CANADA www.omega.ca Laval(Quebec)

1-800-TC-OMEGA

### GERMANY

www.omega.de Deckenpfronn, Germany 0800-8266342 UNITED KINGDOM www.omega.co.uk Manchester, England 0800-488-488 +44-(0)161-777-6611

> FRANCE www.omega.fr 0800-466-342

BENELUX www.omega.nl 0800-099-33-44



# More than 100,000 Products Available!

# Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, 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, Thermocouple Wire, RTD Probes

# 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

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ehernet 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, Pressure Transmitters, Strain Gauges, 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