

1/8 DIN Digital Proportional, OMEGA[®] On/Off Temperature Controller

CN1000 Series



- ✓ Thermocouple and RTD Input Models
- ✓ Dual Programmable Setpoints
- ✓ Analog Output Standard
- ✓ Latching/Non-Latching Relays
- ✓ Red or Green Display
- ✓ Optional Isolated Analog Output
- ✓ RoHS 2 Compliant

The CN1000 Series combines the features of a controller, monitor and temperature limit alarm into one easy-to-use digital meter for applications that require maximum versatility. The CN1001TC is selectable for J, K, T or J DIN thermocouple input with 1° resolution. The CN1001RTD is selectable for 100 Ω Platinum RTD inputs (alpha = 0.00385) with 0.1° resolution. Dual independent setpoints are available and are programmable for proportional or on/off operation. The standard analog output is a retransmission of the temperature input and can be sent to a remote chart recorder, data logger or data acquisition system.

Specifications

Input: Thermocouples Type J, K, T, and J DIN

RTD Input: 100 Ω Pt (0.00385 curve) 2-, 3- and 4-wire selectable

Signal Input: 240 Vrms overvoltage protection

Outputs: 2 Form C (SPDT) relays, rated 5 A, 250 Vac; programmable through software for proportional/ non-proportional (on-off) control, or active high/low alarms with latching/ nonlatching relays

Relay Hysteresis: Programmable for 0 to 9999

Accuracy: ±0.5% @ 25°C (77°F) after 30 minute warm-up

Temperature Coefficient: ±50 PPM/°C

Read Rate: 3/s

Step Response: 2 seconds

Power: 115 or 230 Vac ±10%, 0 to 60 Hz; 8 W maximum



CN1001TC shown smaller than actual size.

Isolation: Dielectric strength to 2500V transient per 3 mm (0.12") spacing based on EN61010 for 260 Vrms or DC
NMR: 60 dB
CMR: 120 dB
Input Resistance: 100 MΩ
Operating Temperature: 0 to 50°C (32 to 122°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)

Analog Output: (optional isolated version): scalable 0 to 10 Vdc or 4 to 20 mA

Dimensions: 48 H x 96 W x 152 mm D (1.89 x 3.78 x 6.0")

Panel Cutout: 45 H x 92 mm W (1.772 x 3.622")

Weight: 574 g (1.27 lb)

To Order

Model No.	Description	Input Type	Range
CN1001TC	Programmable thermocouple controller	J	-210 to 760°C (-346 to 1400°F)
		J DIN	-200 to 900°C (-328 to 1652°F)
		T	-270 to 400°C (-454 to 752°F)
		K	-270 to 1372°C (-454 to 2500°F)
CN1001RTD	Programmable RTD controller	100 Ω Pt 2-, 3-, 4-wire	-200 to 850°C (-328 to 1562°F)

Comes complete with operator's manual.

Ordering Example: CN1001RTD-GN-AI-DC26/56, programmable thermocouple controller, with green display and 26 to 56 Vdc power, and isolated analog output.

Display, Output and Power Options

Suffix	Description
-GN	Green LED display
-AI	Isolated analog output
-230V	230 Vac power
-DC10/32	10 to 32 Vdc power
-DC26/56	26 to 56 Vdc power

Accessories

Model No.	Description
SPC4	NEMA 4 heavy-duty splashproof lens with screw clamp
SPC18	NEMA 4 splashproof lens with spring clip
CNQUENCHARC	Noise suppression RC snubber (2 leads), 110 to 230 Vac