



1/8 DIN Vertical Ramp/ Soak Temperature/ Process Controllers

CN7600 Series



- ✓ Dual 4-Digit LED Display
- ✓ 8 Ramp/Soak Programs, 8 Segments Each
- ✓ Universal Inputs
- ✓ Dual Controls
- ✓ RS485 Communications

The CN7600 Series Controller offers versatility and reliability for temperature and process monitoring applications. The CN7600 features dual outputs, universal input, and up to three additional alarm outputs. The second output can be configured as a third alarm output. Control methods include ON/OFF, PID, auto-tune or manual tune. PID control is supported with 64 ramp/soak control actions. RS485 communication is standard.

Specifications

Inputs: Thermocouple, RTD, DC voltage or DC current
Display: Two 4-digit, 7 segment 9.35 mm H (0.38") 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 maximum

Inputs

Input Types	Range
K Thermocouple	-200 to 1300°C (-328 to 2372°F)
J Thermocouple	-100 to 1200°C (-148 to 2192°F)
T Thermocouple	-200 to 400°C (-328 to 752°F)
E Thermocouple	0 to 600°C (32 to 1112°F)
N Thermocouple	-200 to 1300°C (-328 to 2372°F)
R Thermocouple	0 to 1700°C (32 to 3092°F)
S Thermocouple	0 to 1700°C (32 to 3092°F)
B Thermocouple	100 to 1800°C (212 to 3272°F)
L Thermocouple	-200 to 850°C (-328 to 1562°F)
U Thermocouple	-200 to 500°C (-328 to 932°F)
Pt100 RTD	-200 to 600°C (-328 to 1112°F)
0 to 50 mV	-999 to 9999
0 to 5 V	-999 to 9999
0 to 10 V	-999 to 9999
0 to 20 mA*	-999 to 9999
4 to 20 mA*	-999 to 9999

* Requires external 250 Ω precision shunt resistor, **OMX-R250** (sold separately). Available at omega.com/cn7800

CN7623 shown smaller than actual size.



Operating Temperature:

0 to 50°C
(32 to 122°F)

Memory Backup:

Nonvolatile memory

Control Output Ratings:

Relay: SPST, 5 A
 @ 250 Vac resistive
Voltage Pulse: 14V,
 10 to -20% (maximum 40 mA)

Current:

4 to 20 mA

Communication:

RS485 MODBUS® communication protocol

Panel Cut-Out:

92 x 46 mm (3.60 x 1.8")

Maximum Panel Thickness:

9.50 mm (0.375")

Panel Depth:

79.2 mm (3.125")

Weight:

425 g (15 oz)

Front Panel Rating:

IP66

To Order

Model No.	Description
CN7623	Dual output, DC pulse/relay with RS485*
CN7633	Dual output, relay/relay with RS485*
CN7653	Dual output, 4 to 20 mA/relay with RS485*
CN7663	Dual output, 0 to 5 or 0 to 10 Vdc/relay with RS485*

Accessories (Field Installable)

Model No.	Description
CNQUENCHARC	Noise suppression kit, 110 to 230 Vac
CN7-485-USB-1	RS485 to USB mini-node converter
OMX-R250	250 Ω precision resistor

Comes complete with operator's manual.

* Free CN7-A software download available at omega.com/cn7600

Ordering Examples: **CN7623**, dual-output controller, DC pulse, mechanical relay output, and RS485 communications.

CN7663, dual output controller, 0 to 5 or 0 to 10 Vdc, mechanical relay output, RS485 communications.