

# Cole-Parmer®

## Cole-Parmer® Analogue / Digital Heating Controllers - CN-200, CN-200D

- Analogue: 4 different models of 1-way heating controllers
- Analogue: Operate up to 800W, 1100W, 1800W or 2300W respectively
- Digital: PTFE-covered platinum resistance thermometer is included for measurements up to 270°C
- Digital: Zinc die-cast outer case is suitable for the bench or can be mounted on a 12.7cm support rod
- Digital: Three-digit LED display allows you to set a 1°C resolution over a range of -10°C to 800°C



CN-200 Analogue Heating Controller



CN-200 Analogue Heating Controller

## Cole-Parmer® Analogue Heating Controllers - CN-200

### For all 1-Way Heating Controllers

The Cole-Parmer® CN-200 series heating controllers have been designed to control the heating of resistive loads for bench top operation. The heating controllers deliver different levels of power according to your requirements and are suitable for HM series Electromantles, the Electric Bunsen and Heating Tapes.

Each heating controller has two neon indicators: "Power On" white neon light and "Mantle/Bunsen Heater On" amber neon light. They all have a regulator control knob which can be turned clockwise to increase power. As the knob is turned, the heating controller's amber neon light will pulsate to show that power is being supplied to the equipment being controlled, e.g. mantles, heating tape. The pulse frequency will decrease as the regulator control knob setting is increased, and at maximum setting, the amber neon will be continually illuminated.

A support rod clamp is provided at the rear of each heating controller to take a standard 12.5mm (1/2") diameter rod. They have a short mains lead with an IEC socket to connect them to the resistive load. An accessory extension mains lead is available where remote operation is required, e.g. in a fume extraction unit. The heating controllers can be mounted on standard 1/2" (12mm) diameter scaffold or retort stands, they can also be wall mounted using a mounting bracket or stand directly on the bench.

### Technical Specification

1-Way Heating Controller model	CN-200-800	CN-200-460-115	CN-200-2300	CN-200-1100-115	CN-200-1800	CN-200-1150-115
<b>Electrical requirements: 230V</b>	230V, 50 / 60 Hz, 800W	Not applicable	230V, 50 / 60 Hz, 2300W	Not applicable	230V, 50 / 60 Hz, 1800W	Not applicable
<b>Electrical requirements: 115V</b>	Not applicable	115V, 50 / 60Hz, 460W	Not applicable	115V, 50 / 60Hz, 1100W	Not applicable	115V, 50 / 60Hz, 1100W
<b>Controller power consumption</b>	1 Watt	1 Watt	1 Watt	1 Watt	1 Watt	1 Watt
<b>Dimensions (d x w x h), mm</b>	130 x 95 x 105	130 x 95 x 105	115 x 120 x 80	115 x 120 x 80	130 x 95 x 105	115 x 120 x 80
<b>Weight, kg</b>	0.42	0.42	0.82	0.82	0.42	0.82

### Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Heating Controller 800W 230V	36223-04	CN-200	CN-200-800	MC5
Heating Controller 460W 115V	36223-05	CN-200	CN-200-460-115	MC5X1
Heating Controller 2300W 230V	36223-00	CN-200	CN-200-2300	MC227
Heating Controller 110W 115V	36223-01	CN-200	CN-200-1100-115	MC228X1
Heating Controller 1800W 230V	36223-02	CN-200	CN-200-1800	MC242
Heating Controller 1150W 115V	36223-03	CN-200	CN-200-1150-115	MC242X1

# Cole-Parmer®

## Digital Heating Controllers - CN-200D

Cole-Parmer® CN-200D digital controller provides a convenient means of temperature control, using microprocessor techniques to give ease of operation and good accuracy. It can be used in three ways: In on/off mode with the hysteresis loop controlling power switching, As a PID (Proportional Integrated Derivative) controller, as a temperature measuring device up to 270°C or more, depending upon the probe accessory used.

The CN-200D Digital Controller may be used in conjunction with a suitable heating or cooling device e.g. Electromantle or Electric Bunsen. For clear operation, the CN-200D digital controller has an on/off power switch, “power on” amber neon indicator and an exit/standby button.

Programming is done via the up/down controls on the front panel and the 3 digit LED display allows you to set a 1°C resolution over a range of -10°C to 800°C. Temperature sensing is performed by a plug-in PTFE covered platinum resistance thermometer probe which is suitable for measurements up to 270°C. There is a 5 pin DIN socket for the temperature probe. The sample temperature is displayed on the 3-digit LED display.

The CN-200D digital controller has a zinc die-cast outer case, and is suitable for bench and retort stand mounting or wall mounting using the wall bracket and retort rod clamps provided. It has a short mains output lead with an IEC socket to connect it to the resistive load. An accessory extension mains lead is available where remote operation is required (e.g. in a fume extraction unit).



CN-200D Digital Heating Controller

### Technical Specification

Specification	CN-200D	CN-200D-115
Electrical requirements	230V, 50/60Hz, 1500W	115V, 50/60Hz, 750W
Controller power consumption	n <2W	n <2W
Dimensions (d x w x h), mm	100 x 120 x 80	100 x 120 x 80
Weight, kg	1.1	1.1

### Accessories

Model No.	Ordering Number	Description
AZ6705	99965-02	Digital Controller Temperature Probe, High-Temp, 800°C Max
AZ9046	32587-99	Digital Controller Temperature Probe, Extra-Long, 250°C Max
AZ6706	99965-03	Digital Controller Temperature Probe with PTFE Sleaving, 250°C Max
AZ6741	32587-98	Digital Controller Temperature Probe, 400°C Max

### Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Digital Controller 230V, 50/60Hz, 1500W 230V	32587-00	CN-200D	CN-200D	MC810B
Digital Controller 115V, 50/60Hz, 750W 115V	32587-01	CN-200D	CN-200D-115	MC810BX1

coleparmer.com

USA:  
+1.800.323.4340  
+1.847.549.7600

Canada: +1.800.363.5900  
China: +86.21.5109.9909  
France: +33 (0) 1486 37800  
Germany: +49 (0) 9377 92030

India: +1.800.266.1244  
Italy: +39 (0) 1313 89513  
UK: +44 (0) 1480 272279  
All other countries: +1.847.549.7600

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