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Find the *Harvard Apparatus TC-202A* at our website: ***Click HERE***

TC-202A

Bipolar Temperature Controller

Works with all Harvard Apparatus Micro-Incubation and Tissue Slice Chambers



- Low Noise
- Bipolar or monopolar operation
- Temperature control from 0° to 50°C
- Digital display
- Excellent stability

The TC-202A Bipolar Temperature Controller is the next generation of the TC-102 Monopolar Temperature Controller. This instrument operates with all Harvard Apparatus micro-incubators to provide both heating and cooling functions for life science research purposes.

Because the TC-202A is bipolar, it is ideally suited for use with Peltier devices such as those built into our PDMI-2 Open Perfusion Micro-incubator, PSMI Patch Slice Micro-incubator, and CSMI Chambered Slide Micro-incubator.

While the unit has multiple uses, it has been designed as an ideal companion for Harvard Apparatus/Medical Systems Peltier-based micro-incubators. In its monopolar mode, the TC-202A efficiently controls microincubators that use resistive heaters such as the Leiden Micro-incubator Systems and the BSC-BU Brain/Tissue Slice Chamber units.

Specifications

Temperature Setting Range	0 to 50°C
Temperature Regulation	±0.2°C
Temperature Display	0.1°C resolution
Chamber Temperature Sensor	Thermolinear type, 36 KΩ nominal at 25°C
Voltage Range	0 to ±5 V
Current Range	0 to ±6 A DC
Case Size (W x H x D)	48.3 x 8.9 x 33.7 cm (19 x 3.5 x 13.25 in), 19 in. rack mountable
Weight	5.7 kg (12.5 lb)
Power	150 W, 120/230 VAC, 50/60 Hz, user selectable

Flexible

The TC-202A allows the researcher to control the command temperature from alternative locations. In the case of the PDMI-2, PSMI, and CSMI micro-incubators, temperature is controlled either from a thermistor placed in the bath, or from a second thermistor permanently positioned on the plate containing the regulated surface of the Peltier devices.

Accurate

Accurate thermal control (±0.2°C) is achieved by sensing temperature with a miniature thermistor, digitizing the thermistor signals, and then proportionally regulating a low noise DC current output. Current output is also regulated to match the thermal time constants of small systems (such as micro-incubators), thus minimizing initial overshoot and oscillations about the set point.

Other Features

- Low electrical noise for sensitive electrophysiology recordings
- Stable long term operation
- Excellent temperature stability at user selectable set points
- Easy to use, digitally set command temperatures
- Versatile monopolar or bipolar operation (heat only or heat and cool)
- Temperature profile monitoring capability
- Over-temperature shut down

Order #	Model	Product
W3 65-0045	TC-202A	Bipolar Temperature Controller for use with PDMI-2, PSMI, CSMI, LU-CB-1, LU-CPC-CEH, and BSC-BU. Includes BSC-T3 Thermistor
Accessories and Replacement Parts		
W3 65-0057	BSC-T3	Bath Thermistor for use with PDMI-2, PSMI, LU-CB1, and TC-202A (36 KW total)
W3 65-0056	BSC-T3A	Bath Thermistor for use with LU-CPC-CEH
W3 65-0098	BSC-T2	Old Style Bath Thermistor for Obsolete TC-102
W3 65-0016	BSC-T2A	Old Style Bath Thermistor for use with LU-CPC-CEH and TC-102

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