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Data Sheet

August 13, 2026

LAKE SHORE

Lake Shore DRC-93CA

The Lake Shore DRC-93CA is a microprocessor-based temperature controller engineered for precise cryogenic temperature management. It delivers real-time analog control using three-term (PID) circuitry to maintain user-defined setpoints with high stability and accuracy. The controller supports internal programming with up to 99 steps and accommodates multiple sensor types, making it adaptable to diverse low-temperature applications. Two five-digit sensor displays with resolution of 0.01 K above 100 K and 0.001 K below 100 K 16-bit analog-to-digital converter with 100 microvolt resolution (full scale dependent on card configuration) Compatible with silicon sensors (9210-3 or 9220-3) and Gallium-Aluminum diode sensors



MODEL

Lake Shore DRC-93CA

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

DRC-93CA

LISTING

<https://aumictechlabs.com/products/drc-93ca-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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heater Internal programming capacity: 99 program steps Sensor Input & Measurement Two sensor input card slots Two five-digit sensor displays with resolution of 0.01 K above 100 K and 0.001 K below 100 K 16-bit analog-to-digital converter with 100 microvolt resolution (full scale dependent on card configuration) Compatible with silicon sensors (9210-3 or 9220-3) and Gallium-Aluminum diode sensors Optional 8229 Scanner Conversion Card extends capability to 6 sensors Display modes: K, °C, °F, or sensor units (volts, ohms, nanofarads) Physical & Integration Rack-mountable chassis configuration Input card compatibility: 9102 card configured as 9102-3 or 9102-6 Math functions available Key Features True analog control with PID tuning for stable temperature maintenance Dual five-digit displays for simultaneous sensor monitoring Flexible sensor compatibility spanning silicon and diode technologies Expandable architecture supporting up to 6 sensors via optional scanner card High-resolution measurement: sub-millikelvin precision below 100 K Multiple temperature unit display options for operational flexibility Compatibility & Integration The DRC-93CA represents an upgrade to the DRC-93C and integrates with Lake Shore silicon and Gallium-Aluminum diode sensor families. The modular input card design permits configuration flexibility through the 9102 series, while the optional 8229 Scanner Conversion Card enables multi-sensor applications without requiring additional controller hardware.

Features & description

From manufacturer datasheet

Features

- Analog PID with microprocessor setpoint

DRC93CA Characteristics / Specifications

PARAMETER	VALUE
Model	DRC-93CA
Manufacturer	Lake Shore Cryotronics
Instrument Type	Cryogenic Temperature Controller
Series	DRC-93C / DRC-93CA
Alias	DRC-93CA; DRC-93C; DRC93CA
Control Type	three-term PID real-time analog control
Setpoint	analog voltage corresponding to desired temperature, compared to sensor signal
Heater Current	up to 1 A
Heater Load	50 ohm resistive heater class
Program Steps	up to 99
Sensor Slots	2 input card slots
Example Input Cards	9317C resistance sensor input A; 9318C resistance sensor inputB Displays: two five-digit sensor displays
Math Functions	included on DRC-93C/CA feature list
Analog Output Card	8225 analog output option card class
Line Example	120 Vac on many Artisan-configured units; confirm 100/120/240 on the rear
Form	rack/bench cryogenic controller
Sensors	diode, resistor, and other cards per the installed 93xx input modules
Calibration	sensor curves in the controller per Lake Shore card/firmware
Successor	Lake Shore 340 / 336 / 350 class controllers
Documentation	Lake Shore DRC-93CA manual
Identity	CA suffix is the DRC-93C analog-control family variant
IEEE	GPIB/computer interface options exist on some DRC-93 configurations; confirm the installed card
Duty	continuous cryogenic control

PARAMETER	VALUE
Heater Power Class	1 A into 50 ohm = 50 W class (V = IR = 50 V compliance class; confirm on the manual heater table) Notes Specs from Lake Shore DRC-93C/DRC-93CA feature set (PID analog, 1 A / 50 ohm, two slots, 99 steps). Sensor type and accuracy follow the installed input cards. Confirm line voltage and option cards.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.