7900 Controller for Rosemount-Designed Baths

Key features

- Two independent over-temperature cutout circuits for temperature control.
- This controller uses the same circuitry as Fluke Calibration's 2100 Controller to achieve long-lasting stabilities of ± 0.003 °C or better.
- Includes a circuit that monitors the controller's microprocessor and auto-resets if interrupted.
- Provides a software cutout with an adjustable high-temperature limit.
- Separate hardware cutout monitors the bath's temperature and controls heating and cooling.

Product overview: 7900 Controller for Rosemount-Designed Baths

- All the features of the Fluke Calibration 2100 Controller
- Installs easily
- Two independent over-temperature cutout circuits

Fluke Calibration's bath controllers have long been recognized as being among the finest in the world. They're the most popular retrofit controller in the industry, and now they're available for Rosemount baths. The Model 7900 Controller installs easily and can replace the Rosemount Model 915 for all Rosemount bath models.

This controller uses the same circuitry as Fluke Calibration's 2100 Controller to achieve long-lasting stabilities of ± 0.003 °C or better. Special noise-rejection techniques allow the 7900 to measure the very tiny resistance changes required for

this level of stability. AC bridges are used within the controller to cancel thermal EMFs. Custom high-precision resistors contribute to short- and long-term stability and advanced filtering techniques force out troublesome line noise. The Model 7900 includes a special circuit that monitors the controller's microprocessor and automatically resets it if its operations are interrupted. Two separate cutout systems are also included for keeping your bath's temperature within its normal range.

A software cutout uses an adjustable high-temperature limit that can be easily accessed through the front panel and set to match the requirements of your bath fluid. Should the control sensor measure a temperature beyond this upper limit, heating is shut down. If the bath's temperature falls below its normal operating range, the heaters are turned on and the LN 2 cooling is shut off. A second, independent hardware cutout monitors the bath's temperature with a thermocouple and shuts down all heating and LN 2 cooling if the bath's temperature rises above its range.

These cutout features, combined with the superior reliability and long-term stability performance of the 7900, allow you to run your system for as long as you like between shut-downs—365 days a year, if you wish. Your bath can be ready for you to take measurements the minute you walk into your lab each day.

Specifications: 7900 Controller for Rosemount-Designed Baths

Specifications	
Temperature cool range	−100 °C to 400 °C
Optional ranges	None
Stability	± 0.003 (± 0.001 typical)
Stabilization time	30 minutes
Display accuracy	± 1 °C
Cooling cool	LN 2 – automatic
Heating cool	2-position, firmware or user coolled
Firmware high-temp cutout	Yes, volatile, programmable (independent of the cooler)
Hardware high-temp cutout	Thermocouple coolled
Memory	Non-volatile; 8 programmable set-points, each with ramp and soak features
Programmable soak time	1 to 500 minutes
Cool sensor	100-ohm PRT; alpha = 0.00385
Interface	RS-232 and IEEE standard
Operating temperature	5 °C to 50 °C
Operating voltage	115 VAC (±10 %), 60 Hz
CE mark	Contact Fluke Calibration
Current rating	20 amps maximum
Dimensions (W x H X D)	311 x 114 x 279 mm (12.25 x 4.5 x 11 in)
Weight	4 kg (9 lb)
Installation	Freestanding or rack-mounted with optional hardware

Ordering information

7900-B

Controller, Rosemount-Designed baths, bottom stirred (includes control probe and thermocouple cutout)

7900-T

Controller, Rosemount-Designed baths, top stirred (includes control probe and thermocouple cutout)

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