

# RTD Thermometers

## High Accuracy



Standard No Points

868F/869C

- ✓ Comes with NIST Traceability Certificate (No Points)
- ✓ 3- and 4-wire RTDs
- ✓ High Accuracy
- ✓ 0.1° and 1° Resolution
- ✓ Compact and Rugged
- ✓ DIN 43760 Standard

### Specifications

**Sensor:** 3- or 4-wire 100 Ω Platinum RTD  $\alpha=0.00385$

**Accuracy:** Includes DIN 43760 conformity (no points), repeatability, temperature coefficient (18 to 28°C ambient), time stability (1 year) and errors with up to 50 Ω of resistance in each lead; excluded probe errors

**Repeatability:** Less than 0.2°F typical for one week at constant ambient temperature

**Temperature Coefficient:**

18 to 28°C (64 to 82°F); included in accuracy specification; less than 18°C (64°F) or greater than 28°C (82°F) less than  $\pm(0.015^{\circ}\text{C})/^{\circ}\text{C}$

**Maximum Lead Resistance:**

4-wire: 50 Ω max; 3-wire: 10 Ω max

**Display:** 3½ digit LCD, 13 mm (0.5") height; polarity, decimal point, open sensor and overrange indication

**Reading Rate:** 1.5 per second

**Battery Life:** 500 hours typical, with 9V alkaline battery (included)

**Battery Indicator:**

Display reads "LO BAT" when less than 10% of life remains

**Linearization:** Ratiometric dual-slope A/D with continuous linearization

**Mating Connector:** OMEGA® series T instrumentation connectors (model TA4F and TA4FL), see omega.com

**Environmental Limits:** Operating:

-10 to 50°C (14 to 122°F), less than 80% RH, up to 35°C

**Storage:** -35 to 60°C (-31 to 140°F), less than 90% RH, up to 35°C

**Maximum Common Mode Voltage:** 42V peak

**Temperature Settings**

**Model 868F**

200°F:

**Range:** -199.0 to -100.1°F;

-199.0 to -100.1°F

**Resolution:** 0.1°F

**Accuracy:**  $\pm 1.0^{\circ}\text{F}$ ;  $\pm 0.4^{\circ}\text{F}$

1100°F:

**Range:** -100 to +1100°F;

-360 to -101°F

**Resolution:** 1°F

**Accuracy:**  $\pm 2^{\circ}\text{F}$ ;  $\pm 4^{\circ}\text{F}$

869C shown smaller than actual size.



TA4F connector provided with each unit.



868F.

**Model 869C**

200°C:

**Range:** -100.0 to +199.9°C;

-199.0 to -100.1°C

**Resolution:** 0.1°C

**Accuracy:**  $\pm 0.3^{\circ}\text{C}$ ;  $\pm 1.5^{\circ}\text{C}$

1100°C:

**Range:** -100 to 630°C;

-220 to +101°C

**Resolution:** 1°C

**Accuracy:**  $\pm 1^{\circ}\text{C}$ ;  $\pm 2^{\circ}\text{C}$

**Dimensions:** 160 H x 69 W x 31 D mm (6.3 x 2.7 x 1.2")

**Net Weight:** 210 g (7.5 oz)

See OMEGA's Complete Line of RTD Probes and Handles online



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your Sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

To Order	
Model No.	Description
868F	RTD Thermometer (Fahrenheit)
869C	RTD Thermometer (Celsius)

Accessories	
Model No.	Description
SC-800	Soft carrying case
TA4F	Series T 4-wire connector (1 supplied)
MN1604	9V alkaline battery
OT-201-1/2	High thermal conductivity paste for fast surface measurements, ½ ounce jar
CAL-3-HH	NIST-traceable calibration with points

Comes complete with 9V alkaline battery, NIST traceable calibration certificate (no points), operator's manual, mating input connector (TA4F).

**Ordering Example:** 868F, RTD thermometer, with fahrenheit readout.

OCW-3, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 4 years.