

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 Connection: 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.

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)

868F.

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

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, OMEGACARESM extends standard 1-year warranty to a total of 4 years.