

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.

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



OMEGACARESM extended warranty program is available for models shown on this page. Ask your Sales representative for full details when placing an order. OMEGACARESM 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, OMEGACARESM extends standard 1-year warranty to a total of 4 years.