

High-Performance Readout Pyrometers

With Parallax Mirror Display

7000 Series



- ✓ Self-Powered
- ✓ Taut Band Mechanism Standard
- ✓ Phenolic Fronts
- ✓ Glass Windows
- ✓ Proven Reliability
- ✓ Accurate Measurement and Display
- ✓ Wide Selection of Ranges
- ✓ 3 Choices of Mounting: Front-Panel, Bezel, or Bench Stand

OMEGA® Series 7000 meters have thermocouple ranges calibrated for 10 Ω external resistance and are supplied with an adjustable 10 Ω resistor for use with thermocouples of lower resistance.

Specifications

Accuracy: ±2%

Tracking: None

Balance: ±1%

Repeatability (Taut Band Mechanism): $\lt; 1/4\%$



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.

Effects of shock, vibration, humidity and temperature are equal to or better than ANSI C39.1 - 1981.
 Safety (dielectric test, leakage and other hazards): instruments are equal to or better than ANSI C39.5 - 1974.
 The above tolerance limits apply to the standard ranges listed in this bulletin. Special instruments may vary from these limits. Rated circuit to ground voltage = 80 Vms (1100 peak)

7035-T-100 shown slightly smaller than actual size.



7035-J-300 shown smaller than actual size.

Thermocouple Specifications

Thermistor-type copper error compensation. Current sensitivity is approximately 4 Ω/mV (250 mA). Automatic bimetal cold-junction compensation for changes in ambient temperature. Mirrored scales with knife edge pointers are standard on all pyrometer models.

Thermocouple Ranges

Standard Ranges		
T/C	°C	°F
T	-130 to 40	-200 to 100
J	-100 to 120	-150 to 250
	-70 to 310	-100 to 600
	-60 to 110	-75 to 225
	0 to 150	0 to 300
	0 to 260	0 to 500
	0 to 430	0 to 800
K	0 to 500	0 to 1000
	0 to 800	0 to 1500
	0 to 1100	0 to 2000
R	0 to 1370	0 to 2500
	0 to 1650	0 to 3000

Bezel Mount Style

3 Mounting Styles

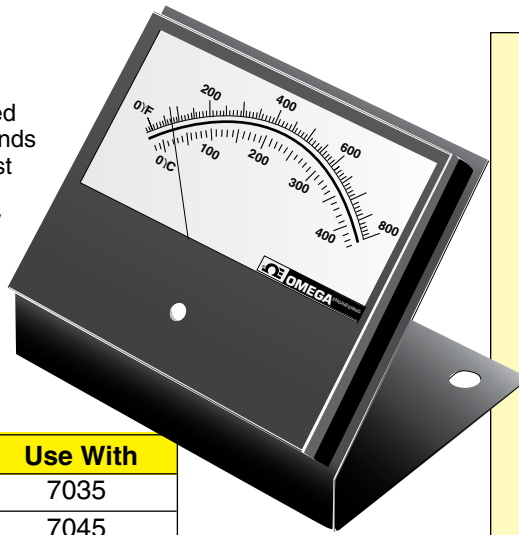
- 1) Front-Panel Mount Standard
- 2) Rear-Panel Mount Using Bezel Mounting Kit (See Below)
- 3) Bench Stands (Models: S-35, S-45, S-55— See Next Page)

Bezel Mounting Kits

Model No.	Use with
7045-BMK	7045
7055-BMK	7055

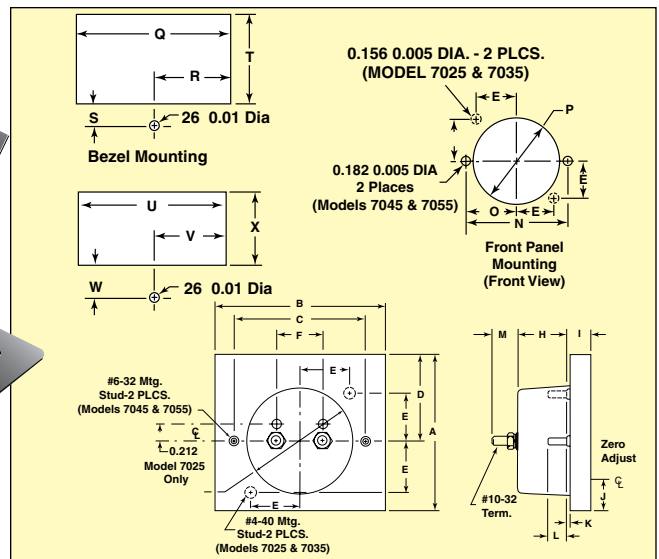
Series 7000 Bench Stands

Heavy-gage anodized aluminum bench stands are available for most pyrometer models. These simplify many laboratory applications. See table for model and part numbers.



Bench Stands

Model No.	Use With
S-35	7035
S-45	7045
S-55	7055



Model No.	A	B	C	D	E	F	G	H	I	J	K	L
7035	3.04 max	3.5 max	—	1.53 max	1.125 ±0.01	1.25 ±0.01	2.79 max	1.37 max	0.60 max	0.53 ±0.02	0.02 max	0.56 ±0.02
7045	4.09 max	4.64 max	3.5 ±0.01	2.29 ±0.03	—	1.25 ±0.01	2.79 max	1.37 max	0.60 max	0.77 ±0.02	0.02 max	0.56 ±0.02
7055	4.53 max	5.66 max	4.50 ±0.01	2.695 ±0.02	—	1.25 ±0.01	2.79 max	1.37 max	0.58 max	0.845 ±0.02	0.02 max	0.56 ±0.01

Model No.	M	N	O	P	Q	R	S	T	U	V	W	X	
7035	0.675 Max	—	—	2.810 ±0.15	3.718 +0.030 -0.000	1.859 +0.015 -0.000	—	0.44 ±0.01	2.156 +0.030 -0.000	3.105 ±0.015	1.552 ±0.008	0.76 ±0.01	1.515 ±0.015
7045	0.675 max	3.50 ±0.01	1.750 ±0.005	2.810 ±0.015	4.812 +0.030 -0.000	2.406 +0.015 -0.000	—	0.63 ±0.01	2.75 +0.03 -0.00	4.205 ±0.015	2.102 ±0.008	0.95 ±0.01	2.125 ±0.015
7055	0.675 max	4.50 ±0.01	2.250 ±0.005	2.810 ±0.015	5.875 +0.030 -0.000	2.937 +0.015 -0.000	—	0.64 ±0.01	3.156 -0.000	5.240 ±0.015	2.620 ±0.008	0.98 ±0.01	2.500 ±0.015

Model 7035 (2% accuracy)	Model 7045 (2% accuracy)	Model 7055 (2% accuracy)	Temperature Ranges		Thermocouple*	ANSI Type
Model No.	Model No.	Model No.	°C	°F		
7035-T-100	7045-T-100	7055-T-100	-130 to 40	-200 to 100	Cu/C	T
—	7045-T-250	7055-T-250	-100 to 140	-150 to 250	Cu/C	T
—	7045-T-225	—	-60 to 100	-75 to 225	Cu/C	T
7035-J-250	7045-J-250	7055-J-250	-100 to 120	-150 to 250	I/C	J
7035-J-600	7045-J-600	7055-J-600	-70 to 310	-100 to 600	I/C	J
7035-J-225	7045-J-225	7055-J-225	-60 to 110	-75 to 225	I/C	J
7035-J-300	7045-J-300	7055-J-300	0 to 150	0 to 300	I/C	J
7035-J-500	7045-J-500	7055-J-500	0 to 260	0 to 500	I/C	J
7035-J-800	7045-J-800	7055-J-800	0 to 430	0 to 800	I/C	J
7035-J-1000	7045-J-1000	7055-J-1000	0 to 500	0 to 1000	I/C	J
7035-K-1000	7045-K-1000	7055-K-1000	-20 to 540	0 to 1000	C/A	K
7035-K-1500	7045-K-1500	7055-K-1500	0 to 800	0 to 1500	C/A	K
7035-K-2000	7045-K-2000	7055-K-2000	0 to 1100	0 to 2000	C/A	K
7035-K-2500	7045-K-2500	7055-K-2500	0 to 1370	0 to 2500	C/A	K
7035-E-225	—	7055-E-225	-60 to 110	-75 to 225	Ch/C	E
7035-E-300	7045-E-300	7055-E-300	0 to 150	0 to 300	Ch/C	E
—	—	7055-E-500	0 to 260	0 to 500	Ch/C	E
7035-E-800	—	7055-E-800	0 to 430	0 to 800	Ch/C	E
—	—	7055-E-1500	0 to 800	0 to 1500	Ch/C	E
7035-R-3000	7045-R-3000	7055-R-3000	0 to 1650	0 to 3000	Pt/Pt 13% Rh	R
—	—	7055-S-3000	0 to 1650	0 to 3000	Pt/Pt 10% Rh	S

Comes complete with operator's manual.

* Cu/C signifies copper vs. constantan. I/C signifies iron vs. constantan.

Ch/C signifies CHROMEGA® vs. constantan.

C/A signifies CHROMEGA® vs. ALOMEGA®.

Ordering Examples: 7035-J-250, high performance readout pyrometer, Type J thermocouple. 7045-K-1000, high performance readout pyrometer, Type K thermocouple.

OCW-3, OMEGACARE™ extends standard 1-year warranty to a total of 4 years.