Miniature Electronic ice point™

MCJ Series





The MCJ converts thermocouple voltages into 0°C referenced signals, for use with DMM's, voltage recorders and other electronic devices. The signals from the MCJ can be converted to temperatures, using the standard temperature-mV tables.

Features

High Stability Design

±1°C stability over entire 10 to 45°C operating range is assured through the computer designed solid state circuit.

Convenient

The MCJ is compatible with any standard thermocouple connector or jack; use ordinary copper wire to connect from the MCJ to any instrumentation for precise ice point referenced readings; with the standard adaptor pins, the MCJ can be used as either a female or male connector.

Calibration Mode

The OMEGA® MCJ can also be used in conjunction with a precision millivolt source in order to check and calibrate thermocouple thermometers and other thermocouple-ready instruments. Connections are made in a reverse mode to the MCJ. Namely, the output of the millivolt source is connected with copper wires as an input to the MCJ on the terminals labeled output. The input terminals then provide the compensated thermocouple output signal which is connected via appropriate type thermocouple wire to the input of the thermometer being checked.





Female-to-male adaptor pins, included, can be used with MCJ Series for direct connection to panel. Shown larger than actual size.



For use with subminiature probes, see the TAS adaptor at omega.com. Shown smaller than actual size.

Specifications

Reference Temperature:

0°C (32°F)

Accuracy: 0.5°C from 15 to 30°C;

1°C from 10 to 45°C **Storage Temperature:**

-25 to 75°C (-13 to 167°F)

(without battery)

Output Impedance: <200 Ω

Weight: 57 g (< 2 oz) **Compact Size Dimensions:**

75 H x 25 W x 13 mm D

 $(2.94 \times 1 \times 0.5")$

Discount Schedule	
1 to 10 units	Net
11 to 24 units	5%
25 to 49 units	10%
50 and up	Consult Sales

To Order		
Model No.	Calibration	Color Code
MCJ-J	J	Black
MCJ-K	K	Yellow
MCJ-T	T	Blue
MCJ-E	E	Violet
MCJ-R/S	$\mathbb R$ and $\mathbb S$	Green
MCJ-C	C*	Red
MCJ-D	D*	Red/white

Comes complete with mating male thermocouple connector, battery and female-to-male

Ordering Example: MCJ-J, J calibration.

Accessories

Model No.	Description	
MCJ-BATT-B	Replacement battery	
MCJ-BATT-R-A	Replacement retro-fit kit for J, K, T, E	
MCJ-BATT-R-B	Replacement retro-fit kit for R, S	
MCJ-BATT-R-D	Replacement retro-fit kit for C, D	

Note: MCJ-BATT-R, retro-fit kit will replace mercury batteries in units purchased prior to April 1995.

Cold Junction Compensator and Calibration Modules

CJ Series



Discount Schedule	
1 to 10 units	
11 to 24 units 5%	
25 to 49 units 10%	
50 and up Consult Sales	

- Works as a Cold Junction Compensator or In Reverse as a Super Accurate Calibrator
- Extreme Versatility; Unit Can Be Plugged Directly into a Thermocouple or into a Jack Panel
- Calibration
- ✓ Bi-Directional Design
- ✓ High Reliability

Specifications

Reference Temperature Setting:

0°C (32°F), standard

Compensation Accuracy: ±½°C, @ 25°C ambient setting; ±½°C, from 15 to 35°C ambient setting; ±¾°C, from 10 to 50°C ambient setting

Storage Temperature:

-25 to 75°C (-13 to 167°F)

(without battery)

Output Impedance: Less than 250 Ω , standard

Battery Life: 1500 hours or longer

depending on calibration.

Highly Stable: Better than ±0.2°C at any stabilized temperature over

the full 10 to 50°C range

Discourit Scriedule	
1 to 10 units	
11 to 24 units 5%	
25 to 49 units 10%	
50 and up Consult Sales	

Customized Color

Codes Also Available!

Consult Sales.

Color-Coded Thermocouple

Instantaneous Warm-Up

Rugged Case

✓ Long Battery Life

To Order				
Model No.	Color Code	Thermocouple Calibration		
CJ-K	Yellow	CHROMEGA®-ALOMEGA®		
CJ-J	Black	Iron-Constantan		
CJ-T	Blue	Copper-Constantan		
CJ-E	Violet	CHROMEGA®-Constantan		
CJ-R/S	Green	Pt/13%-Rh/Pt/10%-Rh		
CJ-G	Red	W/W/26% Re		
CJ-C	Red	W/5%-W/26% Re		
CJ-D	Red	W/3%-W/26% Re		

Comes complete with quick disconnect male plug, banana jack adaptor and battery. Ordering Example: CJ-BATT-B, replacement batteries.

CJ Series has male pins

integral to unit for direct connection to panels.

For units purchased prior to November 1994, order CJ-BATT-R, retro-fit kit

Note: CJs are available with reference junction temperatures other than 0°C, for an additional cost. Maximum reference temperature: 212°F. Consult Sales for details.

^{*} Not ANSI symbols; C: W/5% Re vs. W/26% Re. D: W3% Re vs W/25% Re.