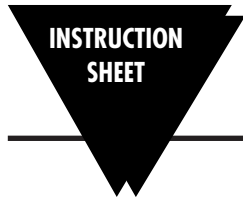


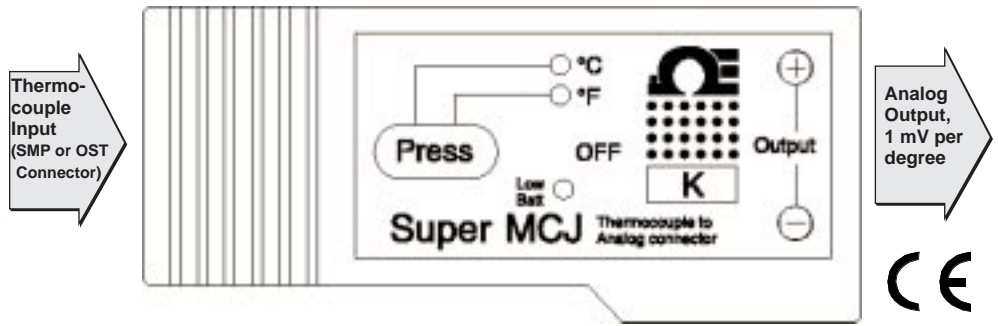


Super MCJ

SMCJ-J, SMCJ-K, SMCJ-T



M-2813



Thermocouple-to-Analog Connector

GENERAL DESCRIPTION

This is a Thermocouple to Analog Connector. It converts a thermocouple input signal (Type J, K, or T) to a linear, compensated, amplified analog output. The unit provides 1mV/°F or 1mV/°C analog output. The analog output can go to a strip chart recorder or a digital voltmeter for temperature monitoring.

The unit is powered by a single AA size lithium battery. In order to install the battery, remove the back cover and place the battery on the PC board. The battery polarity is indicated on the PC board. If the battery is installed reverse, the unit will not power up. The back cover is mounted to the front cover via two mounting holes.

The input connection can be SMP or OST type connections. The output connection is standard banana plug or jack. The plastic case and the rubber gasket Bumper Band® provides a rugged and sealed connector design. Figure 1 provides a functional flow chart of how the unit operates. This unit is operated using a single tactile feedback button (Press).

There are 3 LEDs built into the connector. The °C green LED flashes once every 2 seconds when the output provides 1mV/°C. The °F green LED flashes once every 2 seconds when the output provides 1mV/°F. If the input is open the °C and °F green LEDs both flash alternately once a second.

When the battery voltage drops below a certain level, a red LED starts to flash once a second. This is a low battery indication. The battery must be replaced with a fresh battery immediately.

Field Adjustments

The unit is field adjustable by removing the back cover and accessing the three potentiometers. R17 provides offset adjustment when the unit is in mV/°F mode. R42 provides offset adjustment when the unit is in mV/°C mode. R32 provides span (gain) adjustment either in mV/°F or mV/°C mode.

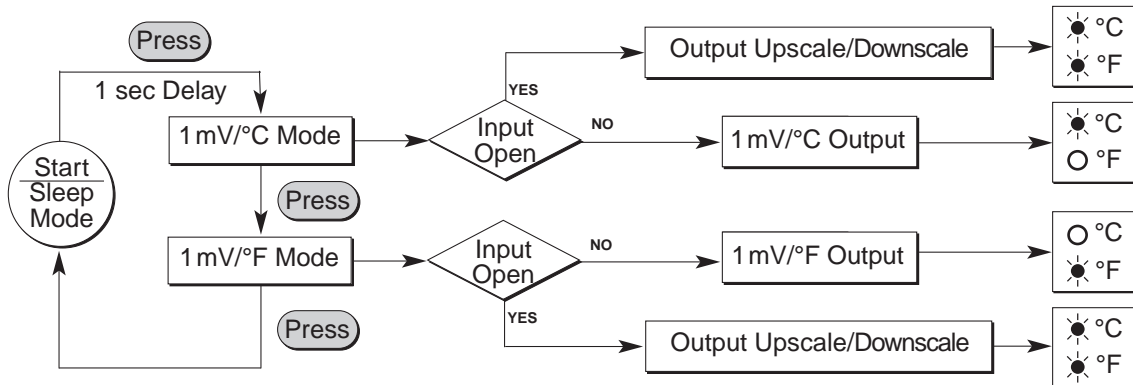


Figure 1, Functional Flow Chart

SPECIFICATIONS

Measuring Temperature Range:

Type J: -100 to +750°C (-148 to +1382°F)
 Type K: -100 to +1250°C (-148 to +2282°F)
 Type T: -100 to +350°C (-148 to +662°F)

Accuracy @ 75°F ambient temperature across the range:

Type J: ±1.4°C (±2.5°F)
 Type K: ±3°C (±5°F)
 Type T: ±2°C (±3°F)

Input Connection: SMP or OST connector

Output Connection: Standard Banana Plug or Jack

Thermocouple Break Protection:

Output goes Upscale (std.)
 °F & °C Green LEDs flash once a second

Output: 1mV/°F or 1mV/°C
 °F or °C Green LEDs flash once every 2 seconds

Output Load: 1K-Ohms min.

Power: One AA size Lithium Battery, 3.3 to 3.6 VDC 1900 mA/H

Battery Life @ 75°F Ambient Temperature: 1440 hours (60 Days), continuous operation, no load

Low Battery Indication: Red LED flashes once a second

Response Time (0 to 63% of Final value): 150 msec

Operating Temperature: 0 to 50°C (32 to 122°F)

Thermal Zero Drift: 0.05 mV/°C (0.05 mV/°F) ambient temperature change

Operating Relative Humidity: 95% or less, without condensation

Dimensions: 4"L x 2" W x 1"H (10L x 5W x 2.5H cm)

Weight: 147 lbs (67g)

Accessories

Model No.	Description
OM-NOMAD-BATT	Replacement Battery
TAC80B-BJ	In-line banana plug (red and black)



OMEGAnetSM On-Line Service
http://www.omega.com

Internet e-mail
info@omega.com

Servicing North America:

USA: One Omega Drive, Box 4047
ISO 9001 Certified Stamford, CT 06907-0047
Tel: (203) 359-1660 FAX: (203) 359-7700
e-mail: info@omega.com

Canada: 976 Bergar
Laval (Quebec) H7L 5A1
Tel: (514) 856-6928 FAX: (514) 856-6886
e-mail: canada@omega.com info@omega.ca

For immediate technical or application assistance:

USA and Canada: Sales Service: 1-800-826-6342 / 1-800-TC-OMEGASM
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Mexico and Latin America: Tel: (95) 800-TC-OMEGASM FAX: (95) 203-359-7807
En Español: (203) 359-1660 ext: 2203 e-mail: espanol@omega.com

Servicing Europe:

Benelux: Postbus 8034, 1180 LA Amstelveen, The Netherlands
Tel: (31) 20 6418405 FAX: (31) 20 6434643
Toll Free in Benelux: 800 0993344
e-mail: nl@omega.com info@omegaeng.nl

Czech Republic: ul.Rude ormady 1868, 733 01 Karvina-Hranice
Tel: 42 (69) 6311899 FAX: 42 (69) 6311114
e-mail: czech@omega.com info@omega.cz

France: 9, rue Denis Papin, 78190 Trappes
Tel: (33) 130-621-400 FAX: (33) 130-699-120
Toll Free in France: 0800-4-06342
e-mail: france@omega.com

Germany/Austria: Daimlerstrasse 26, D-75392 Deckenpfronn, Germany
Tel: 49 (07056) 3017 FAX: 49 (07056) 8540
Toll Free in Germany: 0130 11 21 66
e-mail: germany@omega.com info@omega-enh.de

United Kingdom: P.O. Box 7, Omega Drive, Irlam, Manchester,
ISO 9002 Certified M44 5EX, England
Tel: 44 (161) 777-6611 FAX: 44 (161) 777-6622
Toll Free in England: 0800-488-488
e-mail: uk@omega.com info@omega.co.uk

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WARNING: These products are not designed for use in, and should not be used for, patient connected applications.



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If the unit should malfunction, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear are not warranted, including but not limited to contact points, fuses, and triacs.

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RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

- 1. P.O. number under which the product was PURCHASED,
- 2. Model and serial number of the product under warranty, and
- 3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

- 1. P.O. number to cover the COST of the repair,
- 2. Model and serial number of product, and
- 3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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