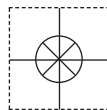


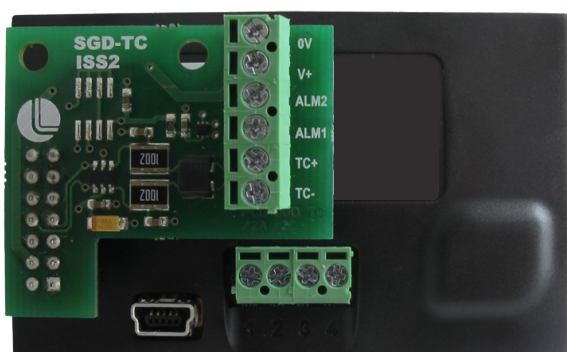
1 YEAR
WARRANTY



Ω OMEGA[®] **User's Guide**

***Shop online at
omega.com[®]***

***e-mail: info@omega.com
For latest product manuals:
www.omegamanual.info***



OM-SGD-ADPT-TC

**Thermocouple Signal Conditioning Module for
OM-SGD Series Displays**



omega.com info@omega.com

Servicing North America:

U.S.A.:

Omega Engineering, Inc., One Omega Drive, P.O. Box 4047
Stamford, CT 06907-0047 USA

Toll-Free: 1-800-826-6342 (USA & Canada only)

Customer Service: 1-800-622-2378 (USA & Canada only)

Engineering Service: 1-800-872-9436 (USA & Canada only)

Tel: (203) 359-1660

Fax: (203) 359-7700

e-mail: info@omega.com

For Other Locations Visit omega.com/worldwide

The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

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

OM-SGD-ADPT-TC

Thermocouple Signal Conditioning Module for OM-SGD Series Displays

ORDERING INFORMATION

SGD-TC add-on board (Add-on board & K-type thermocouple probe)	OM-SGD-ADPT-TC
OM-SGD series displays - see omega.com	OM-SGD-24-M OM-SGD-28-M OM-SGD-35-M

FEATURES

- -200 to +1350 °C (-328 to +2462 °F) K-type measurement range
- -200 to +1190 °C (-328 to +2174 °F) J-type measurement range
- -200 to +390 °C (-328 to +734 °F) T-type measurement range
- Powered from OM-SGD meter
- Application download from Omega website
- User selection of thermocouple type from PC software
- Pre-settable high and low alarms
- Display in either °C or °F

This add-on module interfaces directly with any OM-SGD series display. It has built-in cold-junction compensation (CJC) and takes it's power directly from the OM-SGD meter.



OM-SGD 24-M not included

SPECIFICATIONS

Specifications	Minimum	Typical	Maximum	Unit
Probe Measurement range (K-type)	-200 (-328)		+1350 (+2462)	°C (°F)
Probe Measurement range (J-type)	-200 (-328)		+1190 (+2174)	°C (°F)
Probe Measurement range (T-type)	-200 (-328)		+390 (+734)	°C (°F)
Operating temperature range *	-10 (+14)		+40 (+104)	°C (°F)
Resolution (internal and displayed)		0.1 (0.1)		°C (°F)
Accuracy		±1 (±2)**		°C (°F)

* Operating temperature applies to the module only. Please consult the probe manufacturer for operating temperature of thermocouple.

** Quoted accuracy is for the module only and excludes the thermocouple probe. Thermocouple error should also be taken into consideration.

HARDWARE

The OM-SGD-ADPT-TC board takes it's power from the host OM-SGD. Connect the 14-way connector IDC socket to the OM-SGD, as shown below. The thermocouple is wired to the TC+ (green) and TC- (white) via the screw terminal block.



The system can be powered via the USB port at the OM-SGD.

www.omega.com

OM-SGD-ADPT-TC

Thermocouple Signal Conditioning Module for OM-SGD Series Displays

TERMINAL CONNECTIONS

Terminal connection	Description
V+	Alternative power supply input for the OM-SGD. This passes straight to the SGD via the ribbon cable. Do not use if the power is applied directly to the V+ terminal of the OM-SGD.
OV	Ground connection for the OM-SGD and TC board. Connection not necessary if alarm outputs not used.
ALM1	Open-collector alarm outputs of the OM-SGD. See the OM-SGD data sheet for full details.
ALM2	
TC+	Positive connection for the thermocouple (Green)
TC-	Negative connection for the thermocouple (White)

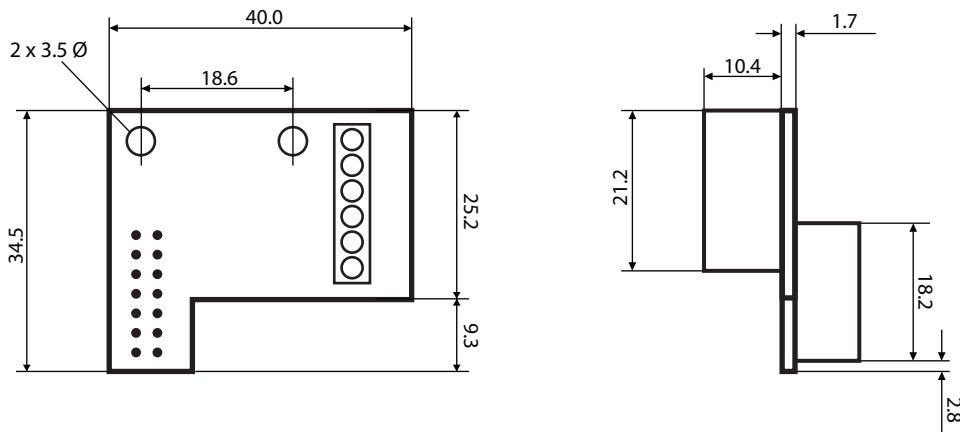
MOUNTING THE OM-SGD-ADPT-TC

The OM-SGD-ADPT-TC should be mounted separately from the OM-SGD display module using the two mounting holes. Take care to observe correct polarity when connecting the power supply and the thermocouple.

Please refer to the OM-SGD data sheet for instructions on mounting the OM-SGD to a panel.

DIMENSIONS

All dimensions in mm



WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, 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 having been 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 in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

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. Purchase Order 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. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the 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.

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2014 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

Where Do I Find Everything I Need for Process Measurement and Control? **OMEGA...Of Course!** *Shop online at omega.comSM*

TEMPERATURE

- ☑ Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- ☑ Wire: Thermocouple, RTD & Thermistor
- ☑ Calibrators & Ice Point References
- ☑ Recorders, Controllers & Process Monitors
- ☑ Infrared Pyrometers

PRESSURE, STRAIN AND FORCE

- ☑ Transducers & Strain Gages
- ☑ Load Cells & Pressure Gages
- ☑ Displacement Transducers
- ☑ Instrumentation & Accessories

FLOW/LEVEL

- ☑ Rotameters, Gas Mass Flowmeters & Flow Computers
- ☑ Air Velocity Indicators
- ☑ Turbine/Paddlewheel Systems
- ☑ Totalizers & Batch Controllers

pH/CONDUCTIVITY

- ☑ pH Electrodes, Testers & Accessories
- ☑ Benchtop/Laboratory Meters
- ☑ Controllers, Calibrators, Simulators & Pumps
- ☑ Industrial pH & Conductivity Equipment

DATA ACQUISITION

- ☑ Data Acquisition & Engineering Software
- ☑ Communications-Based Acquisition Systems
- ☑ Plug-in Cards for Apple, IBM & Compatibles
- ☑ Data Logging Systems
- ☑ Recorders, Printers & Plotters

HEATERS

- ☑ Heating Cable
- ☑ Cartridge & Strip Heaters
- ☑ Immersion & Band Heaters
- ☑ Flexible Heaters
- ☑ Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- ☑ Metering & Control Instrumentation
- ☑ Refractometers
- ☑ Pumps & Tubing
- ☑ Air, Soil & Water Monitors
- ☑ Industrial Water & Wastewater Treatment
- ☑ pH, Conductivity & Dissolved Oxygen Instruments