

Servicing North America:

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

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

For immediate technical or application assistance:

U.S.A and Canada: Sales Service: 1-800-826-6342/1-800-TC-OMEGA®
Customer Service: 1-800-622-2378/1-800-622-BEST®
Engineering Service: 1-800-872-9436/1-800-USA-WHEN®
TELEX: 996404 EASYLINK: 62968934 CABLE: OMEGA

Mexico: En Español: (001) 203-359-7803
e-mail: espanol@omega.com
FAX: (001) 203-359-7807 info@omega.com.mx

Servicing Europe:

Benelux: Postbus 8034, 1180 LA Amstelveen, The Netherlands
Tel: +31 (0)20 3472121 FAX: +31 (0)20 6434643
Toll Free in Benelux: 0800 0993344
e-mail: sales@omegaeng.nl

Czech Republic: Frystatska 184, 733 01 Karviná, Czech Republic
Tel: +420 (0)59 6311899 FAX: +420 (0)59 6311114
Toll Free: 0800-1-66342 e-mail: info@omegashop.cz

France: 11, rue Jacques Cartier, 78280 Guyancourt, France
Tel: +33 (0)1 61 37 2900 FAX: +33 (0)1 30 57 5427
Toll Free in France: 0800 466 342
e-mail: sales@omega.fr

Germany/Austria: Daimlerstrasse 26, D-75392 Deckenpfronn, Germany
Tel: +49 (0)7056 9398-0 FAX: +49 (0)7056 9398-29
Toll Free in Germany: 0800 639 7678
e-mail: info@omega.de

United Kingdom: One Omega Drive, River Bend Technology Centre
Northbank, Irlam, Manchester
ISO 9002 Certified M44 SBD United Kingdom
Tel: +44 (0)161 777 6611 FAX: +44 (0)161 777 6622
Toll Free in United Kingdom: 0800-488-488
e-mail: sales@omega.co.uk

It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification. 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.

警告:

此溫度計設計，不是使用在人體量測用。

簡介

這台儀錶是一台可攜式的3位半數字溫度計，溫度測量使用外接式的K型熱電偶。使用IEC584溫度/電壓標準，單輸入K型熱電偶的溫度計。

操作安全須知

在使用溫度計前，請閱讀操作安全須知及使用說明。

警告
當表面量測電壓超過24V AC或60V DC，需停止量測，以避免遭受電擊。

警告
不可在微波爐內使用，以免燒毀。

注意
重複彎折熱耦線，會使其折斷。
避免折彎熱耦線，尤其是接近角落之部分，可延長熱耦線之使用壽命。

儀錶上△符號表示，使用者必須依照本手冊說明操作。

電器規格

溫度單位:
°C攝氏溫度或°F華式溫度，可由使用者選擇。

量測範圍:
-200°C至1372°C, -328°F至1999°F

自動換檔:
0.1°C/1°C, 0.1°F/1°F

精確度:
精確度，操作溫度在18°C至28°C (64°F至82°F) 一年內，不包含熱耦線誤差。
±(0.1%rdg+1°C) 在-60°C至1372°C
±(0.1%rdg+2°C) 在-60°C至-200°C
±(0.1%rdg+2°F) 在-76°F至1999°F
±(0.1%rdg+4°F) 在-76°F至-328°F

溫度係數:
自0°C~18°C及28°C~50°C，每增減1°C規格準確度增加0.1倍。

輸入保護:
最大輸入保護電壓60V DC或24V AC。

輸入連接:
標準微型熱電偶(熱電偶兩插片中心到中心的距離為7.9mm)

環境說明

操作溫度:
0°C至50°C (32°F至122°F)
儲存溫度:
-20°C至60°C (-4°F至140°F)

一般規格

顯示螢幕: 3 1/2位液晶顯示器(LCD)表示，最大讀值1999。
低電位指示: 當“ ”符號出現時表示電池電壓低於正常的操作電壓。
取樣率: 1次/秒。
操作溫度: 0°C 至 50°C(32°F 至 122°F)、相對溼度 < 70%。
儲存溫度: -20°C 至 60°C(-4°F 至 140°F)、相對溼度 < 80%，需將電池從儀錶中移除。
精確度: 操作在23°C±5°C，相對溼度小於75%。
電池: 標準9V電池 (NEDA 1604, IEC 6F22)。
電池壽命: 100小時(使用碳鋅電池)
尺寸: 21公分(高) x 6.5公分(寬) x 3.5公分(厚)。
重量: 282克(含電池)
配件: 4呎“K”型熱耦線(鐵氟龍材質)。最大量測溫度260°C(500°F)。精度±2.2°C或±0.75%(以較大者為準)讀從0°C至800°C。

使用說明

- “°C/°F”鍵: 選擇溫度單位**
開機時顯示上一次關機的溫度設定單位°C或°F 按住“APO >2S °C/°F”鍵大於 2 秒，改變溫度量測單位。
- “HOLD”鍵**
按“HOLD”鍵會進入量測值鎖定模式，在顯示器會顯示一個“HOLD”的符號，鎖定量測值，再按一次“HOLD”鍵取消量測值鎖定模式。
- “REL”鍵**
按“REL”鍵，開啓量測值相對模式，此時溫度計顯示 REL 符號，溫度計顯示量測值為目前量測值減啓動 REL 時的量測值。按住“REL”鍵大於 2 秒離開量測值相對模式。
- “APO”鍵**
按“APO >2S °C/°F”鍵，開啓或關閉 APO 功能，當液晶顯示器顯示左上方 APO 符號表示 APO 功能開啓。

5. “MIN/MAX”鍵

按“MAX/MIN”鍵進入 MAX MIN 記錄模式，按“MAX/MIN”鍵，顯示記錄的最大值 MAX，再按“MAX/MIN”鍵，顯示記錄的最小值 MIN，再按“MAX/MIN”鍵，顯示記錄的最大值減最小值 MAX-MIN，再按“MAX/MIN”鍵，顯示記錄的平均值 AVG，依上述循環顯示。

按“MAX/MIN”鍵大於兩秒離開 MAX/MIN 記錄模式。

請注意啓動 MAX/MIN 記錄模式時，電源鍵無法關機，必須離開 MAX/MIN 記錄模式才可關機。

偏移值調整

偏移值調整的功能，在標準熱電耦的變化時，通過調整偏移值調整，您可以優化在一個特定的溫度熱電耦測量的精度。

調整步驟

- 1.將熱電耦插入溫度計，開機。
- 2.熱電耦放置在已知穩定的溫度處或接近想要量測溫度，等待讀值穩定。
- 3.讀值穩定，慢慢的調整 OFFSET 旋鈕，直到溫度計讀值與已知的溫度相同。

重置偏移值調整

校準溫度計偏移旋鈕返回到出廠設置，請執行以下步驟：

- 1.連接熱電耦，要調整輸入端。
- 2.熱電耦放置在冰水桶中，讀數穩定。
- 3.慢慢調整旋鈕，直到溫度計，顯示 0°C(32°F)。

熱耦線偵測


紅色 LED 在沒有 K 型熱電耦插入溫度計的輸入端時亮起，將 K 型熱電耦插入後 LED 會熄滅。如果熱電耦連接後，紅色 LED 依然沒有熄滅，請檢查熱電耦線，可能已經損壞。

維護事項

警告

更換電池前，務必將溫度測試線拔離溫度計，以維持安全。

電池更換

1. 使用9V電池(NEDA 1604, IEC 6F22)。
2. 當LCD顯示“符號時，表示電力不足，需要更換電池。
3. 移除電池。
4. 長時間不使用時請移除電池。
5. 不要放置在高溫高溼的地方。

清潔

定期的使用軟濕布沾上中性清潔劑輕擦外殼，不能使用砂布或有溶解能力之溶劑擦拭。

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 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 it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESS 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 2007 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.com**

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
- ☑ Datalogging 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