

K-79

Dialtemp™ Thermometer



INSTRUCTION
SHEET

M0299/0802

SECTION 1 INTRODUCTION

The OMEGA[®] Model K-79 Series Pocket Thermometer is a small, mechanical (non-electronic) thermometer that is accurate, rugged and light in weight. The clear, easy to read 1" dial has a pointer that is directly driven by the sensitive bi-metal helix coil located in the shaft. The 0.142" diameter, 5" stainless steel probe has a needle tip for penetrating semi-solid materials such as fruits and meats. The pointed probe is supplied with a tubular pocket case complete with a pocket clip and holder loop. (See Figure 1)

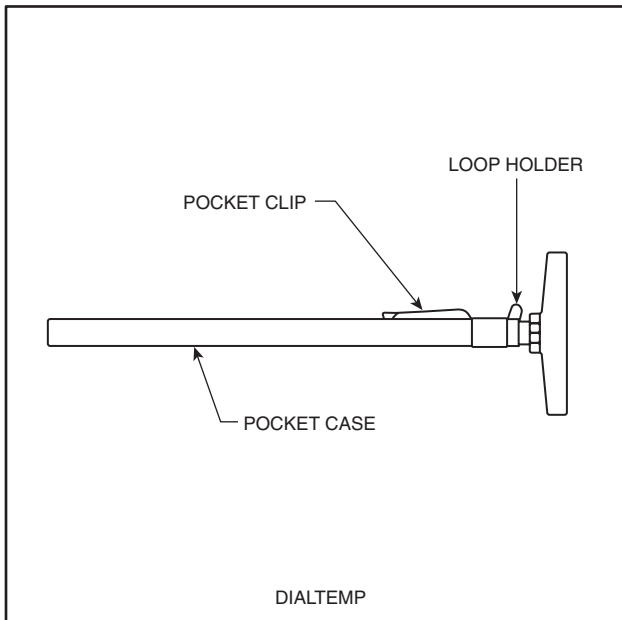


Figure 1 K-79 Thermometer with Pocket Case

This precision built economical thermometer can be used for checking temperatures in a multitude of industries including Air Conditioning, Food Processing, Manufacturing, Refrigeration and Chemical, to name just a few.

The OMEGA K-79 Series Thermometers are available in six ranges:

Model No.	Range	Model No.	Range
K-79-2	-40 to 160°F	K-79-5	50 to 550°F
K-79-3	0 to 220°F	K-79-7	-10 to 110°C
K-79-4	25 to 125°F	K-79-8	0 to 150°C

SECTION 2 UNPACKING

Each OMEGA K-79 is packaged with an Operator's Manual and a removable tubular pocket case with safety pocket clip and holder loop.

Remove the packing list and verify that all equipment has been received. If there are any questions about the shipment, please call the OMEGA Customer Service Department at 1-800-622-2378 or (203) 359-1660.

Upon receipt of shipment, inspect the container and equipment for any signs of damage. Take particular note of any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

NOTE

The carrier will not honor any claims unless all shipping material is saved for their examination. After examining and removing contents, save packing material and carton in the event reshipment is necessary.

SECTION 3 OPERATING INSTRUCTIONS

For accurate temperature measurement, you must immerse the stem at least 2" in a liquid, 3" in a semi-solid (i.e. meat), and 4" in a gas (i.e. air). You should leave the stem in the material being measured for a time period long enough to achieve a stable reading. This usually is about 5 "time constants", or in the case of a liquid, about 20 seconds. (NOTE: time constant is defined under SPECIFICATIONS)

For measuring at high temperatures, the holder loop can be used by inserting the stem through the loop, making the case a holder for the thermometer, to avoid excessive heat exposure to the hand.

When inserting the thermometer into semi-solid materials, such as frozen foods, soils, meat, fish, fruit, etc., hold the stem firmly and insert

slowly and carefully to avoid bending. Do not hold the head when inserting, always hold the stem.

CAUTION

Do not place a "Dial Temp" thermometer in contact with a material where electrical voltage potential is present.

SECTION 4 CALIBRATION

OMEGA K-79 Series Pocket Thermometers are factory calibrated. The alloys used in the bi-metal element determine the span calibration and are not adjustable. The dial head itself, however, can be reset. This is done at ambient temperature, where the pointer remains stable, and the dial is adjusted.

To reset the dial:

1. Determine the room temperature by using a reference thermometer of known accuracy.
2. Firmly hold the hex nut at the base of the dial with a 7/16" wrench.
3. With your other hand, firmly grip the perimeter of the dial. Slowly turn the dial head until the reading corresponds to room the temperature.

SECTION 5 SPECIFICATIONS

Accuracy:	1% of scale
Approx. Response Time in Water:	4 seconds for one time constant*
Head:	1" diameter (25 mm)
Dial:	White background with crisp letters, marks and numbers
Stem:	.142 O.D., 5" long, pointed (3.6 mm x 127 mm)
Reset Nut:	7/16" hex (11 mm)
Pocket Case:	Stainless steel with clip and holder loop
Weight:	.65 ounces (18.5 g)

* "Time Constant" is the time required to reach 63.2% of instantaneous temperature change.



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It is the policy of OMEGA 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 Engineering, Inc. 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, patient-connected applications.

**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 are not warranted, including but 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.

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