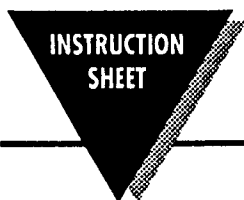


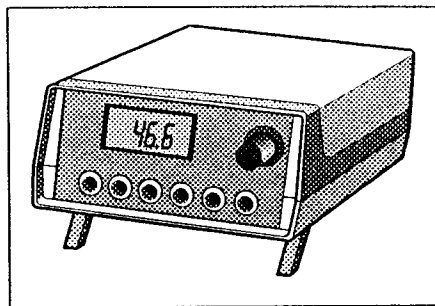


BS6050/6051

RTD Input Benchtop Meters



M2067/1095



Unpacking Instructions

Remove the Packing List and verify that you have received all equipment, including the following:

- BS6050 or BS6051 Meter
- Mating Connector
- Power Cord
- Operator's Manual

If you have any questions about the shipment, please call the Customer Service Department.

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

NOTE

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

Introduction

The BS6050/6051 thermometers are high accuracy microprocessor-driven thermometers for use with PT100 Sensors. PT100 calibrations are based upon NBS and BS tables. The units are housed within tough ABS cases complete with tilt feet for ease of viewing.

Features

- BS6000: Single RTD input
- BS6051: 6 RTD inputs, switch selectable
- Resolution 0.1° to 999.9
- °C/°F switchable
- LCD backlit display
- Overrange/faulty probe indication

Installation

Mechanical

The units may be used either flat or at an angle, depending upon the desired viewing angle. The tilt feet are located on the underside of the instrument, and should be pulled down and toward the front of the instrument until the stop is reached.

Electrical

The units are supplied with a power plug. It is important to be sure that the appropriate input supply voltages are used.

Sensor Connections

The thermocouples are connected via miniature thermocouple plugs on the front of the unit. On the BS6001, the switch must be positioned to the corresponding thermocouple socket. Refer to the wiring diagram on the unit.

Selecting Temperature Scale

The choice of temperature scale (°C/°F) is made using the slideswitch on the rear panel, observing the table shown above the switch. There is no need to reset the unit as it continually monitors the switch settings and will automatically reconfigure itself.

Open Circuit Sensor Detection

An error in the probe is shown by a series of bars (---) on the display. Under these conditions, either the probe has an error or the temperature you are measuring is out of range.



Specifications

Environmental

Ambient operating range: 0 to 50°C (32 to 122°F)
Storage temperature range: -40 to 50°C (-40 to 122°F)
Humidity: 0 to 70% R.H.

General

Weight: BS6050: 500 grams
BS6051: 850 grams
Dimensions: BS6050: 118 x 57 x 150 mm
BS6051: 148 x 67 x 190 mm
Connections: Miniature T/C connectors

Electrical:

Accuracy @ 23°C: ±0.25% reading ±0.2°C
Characterizing errors: Less than 0.05°C
Temperature coefficient: 0.01% of reading/°C
Cold junction compensation: 0.0075°C/°C
Resolution: 0.1 to 999.9
Input voltage ranges: 110 VAC ±10%
240 VAC ±10% optional
9-30 V AC or DC optional

Measurement Ranges

Table with 2 columns: Celsius, Fahrenheit. Values: -200 to 850, -200 to 1562

Notes:

- 1. Strong RF fields may adversely affect measurement accuracy.
2. To avoid earth ground problems, it is recommended that wherever possible, insulated sensors be used.
3. If non-insulated sensors are used, care must be taken to minimize the common mode voltage between the sensor input and the power supply to the instrument.

Recalibration

It is recommended that calibration of the thermometers be performed annually.

WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of 13 months from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time.

OMEGA is glad to offer suggestions on the use of its various products. Nevertheless, OMEGA only warrants 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, 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.

Every precaution for accuracy has been taken in the preparation of this manual; however, OMEGA ENGINEERING, INC. neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the products in accordance with the information contained in the manual.

SPECIAL CONDITION: Should this equipment be used in or with any nuclear installation or activity, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.



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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

Servicing Europe: United Kingdom Sales and Distribution Center

25 Swannington Road, Broughton Astley, Leicestershire LE9 6TU, England
Telephone: 44 (1455) 285520 FAX: 44 (1455) 283912

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING 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.

- 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.

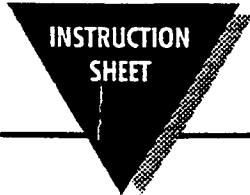
- FOR NON-WARRANTY REPAIRS OR CALIBRATION, consult OMEGA for current repair/calibration charges. Have the following information available BEFORE contacting OMEGA:
1. P.O. number to cover the COST of the repair/calibration,
2. Model and serial number of product, and
3. Repair instructions and/or specific problems relative to the product.

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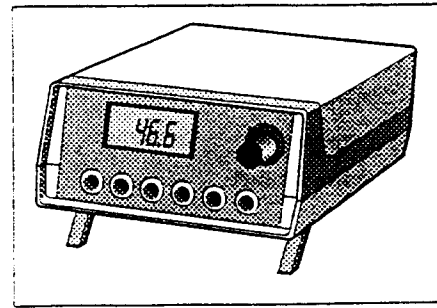


BS6060 / 6061

Thermistor Benchtop Meters



M2067/1095



Unpacking Instructions

Remove the Packing List and verify that you have received all equipment, including the following:

- BS6060 / 6061 Meter
- Mating Connector
- Power Cord
- Operator's Manual

If you have any questions about the shipment, please call the Customer Service Department.

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

NOTE

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

Introduction

The BS6060/6061 thermometers are high accuracy Microprocessor-driven thermometers for use with Thermistor sensors. The thermistor calibrations are Based upon the Omega 44004 thermistor (2252 Ohms @25°C). The units are housed with tough ABS cases complete with tilt feet for ease of viewing.

Features

- BS6060: Single thermistor input
- BS6061: 6 thermistor inputs, switch selectable
- Resolution 0.1° to 999.9
- °C/°F switchable
- LCD backlit display
- Overrange/faulty probe indication

Installation

Mechanical

The units may be used either flat or at an angle, depending upon the desired viewing angle. The tilt feet are located on the underside of the instrument, and should be pulled down and toward the front of the instrument until the stop is reached.

Electrical

The units are supplied with a power plug. It is important to be sure that the appropriate input supply voltages are used.

Sensor Connections

The thermistors are connected via ¼" Jack plugs On the front of the instrument. On the BS6061, The switch must be positioned to the corresponding socket.

Selecting Temperature Scale

The choice of temperature scale (°C, °F) is made using the slideswitch on the rear panel, observing the table shown above the switch. There is no need to reset the unit as it continually monitors the switch settings and will automatically reconfigure itself.

Open Circuit Sensor Detection

An error in the probe is shown by a series of bars ---- on the display. Under these conditions, either the probe has an error or the temperature you are measuring is out of range.

Specifications

Environmental

Ambient operating range:	0 to 50°C (32 to 122°F)
Storage temperature range:	-40 to 50°C (-40 to 122°F)
Humidity:	0 to 70% R.H.

General

Weight:	BS6050: 500 grams BS6051: 850 grams
Dimensions:	BS6050: 118 x 57 x 150 mm 4.65" x 2.24" x 5.90" BS6051: 148 x 67 x 190 mm 5.83" x 2.64" x 7.48"
Connections:	Miniature T/C connectors

Electrical:

Accuracy @ 23°C:	± 0.2 °C
Characterizing errors:	Less than 0.05°C
Temperature coefficient:	0.01% of reading/°C
Resolution:	0.1 to 999.9 1° above 1000°
Input voltage ranges:	110 V AC ±10% 240 V AC ±10% optional 9-30 V AC or DC optional

Measurement Ranges

Celsius	Fahrenheit
-50 to 150	-58 to 302

Notes:

1. Strong RF fields may adversely affect measurement accuracy.
2. To avoid earth ground problems, it is recommended that wherever possible, insulated sensors be used.
3. If non-insulated sensors are used, care must be taken to minimize the common mode voltage between the sensor input and the power supply to the instrument.

Recalibration

It is recommended that calibration of the thermometers be performed annually.

WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of **13 months** from date of purchase. OMEGA 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 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. However, 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 or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

OMEGA is glad to offer suggestions on the use of its various products. Nevertheless, OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.

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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.

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SPECIAL CONDITION: Should this equipment be used in or with any nuclear installation or activity, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.



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